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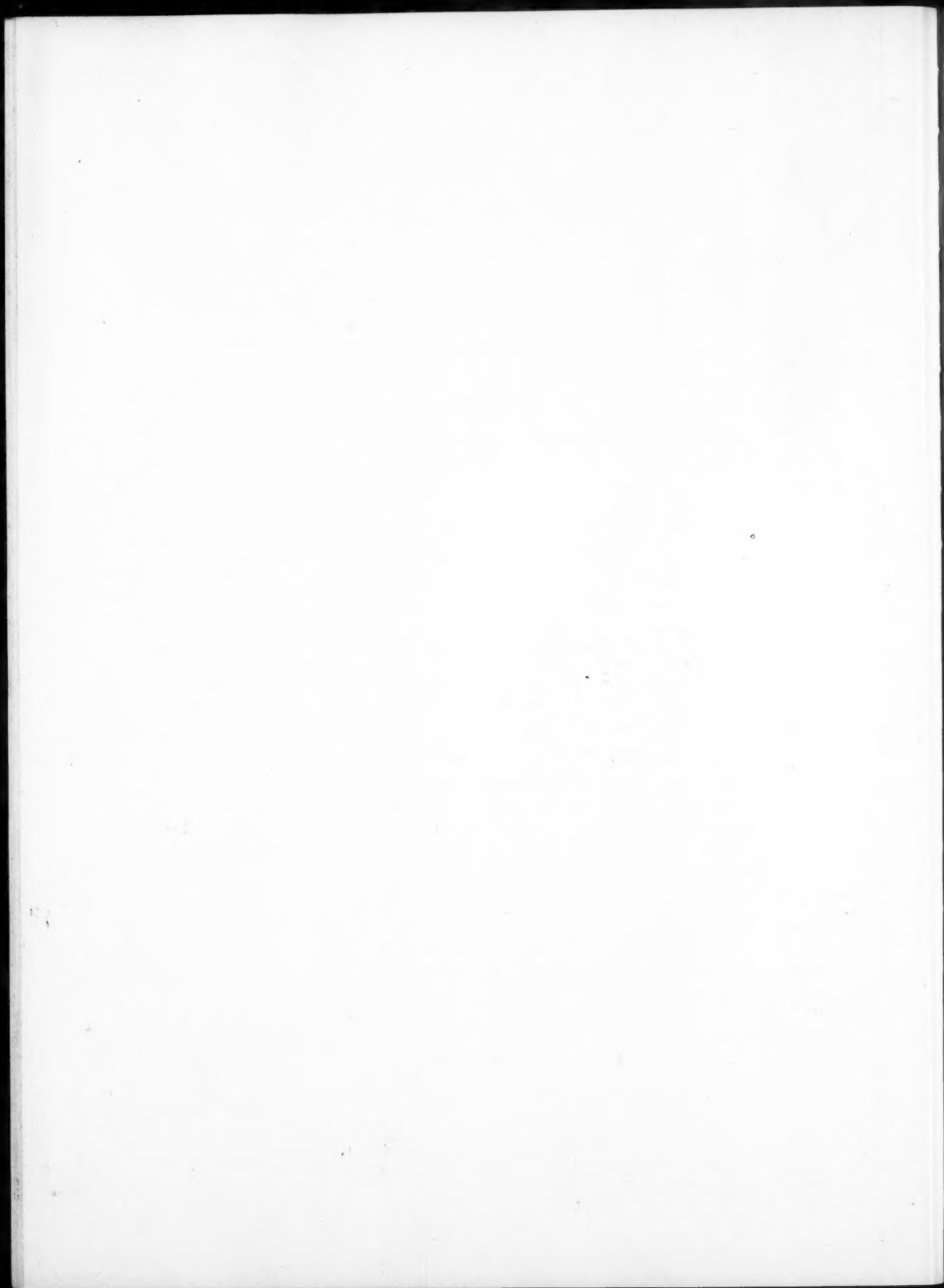
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ARCHAEOLOGICAL NOTES

THE DISCOVERIES AT MERSIN AND THEIR SIGNIFICANCE

THE scene of the investigations described here is the relatively modern sea-port of Mersin, some twenty-five miles to the west of Tarsus (the historic city of St. Paul), in southern Turkey.¹ The ancient site of Mersin is a mound of medium size (fig. 1), which stands on low ground some two miles back from the shore and is not visible from the town. Officially it is called Yümük Tepe, but locally it is included under the name Souk Sü (Cold Water), which really denotes the perennial stream from the glaciers of Taurus that now washes around the foot of the mound on its western side. The mound was previously known only from the occasional visit of some far-sighted archaeologist.² In 1937 the Neilson Expedition decided, after a season devoted to preliminary investigations in the southern part of the Cilician plain,³ to concentrate on a systematic excavation. As leader of the Expedition, I entered this new field with some misgivings. The Expedition had been organized and endowed two years before, through the beneficent interest of Mr. Francis Neilson, President of the Chicago Chapter of the Archaeological Institute of America, to carry out researches in Bible Lands, and had already begun to work on the promising site of Tell Keisan (possibly Achshaph) in northern Palestine. When civil disturbance made it necessary to choose another spot, I found myself responsible for carrying out at the age of sixty what I had longed to do thirty years before. The outcome was a success. All sites examined in our preliminary tour contained novel features of interest. Two full seasons of field work with specialists on the staff have now made it abundantly clear that Mersin not only nurtured its own unique and distinctive cultures, from a remote date, but also occupied a key position between the ancient East and the nascent West, as was to be anticipated from its situation.

Not only did the settlements on the Mersin Hüyük share in the successive culture movements that affected the Cilician plain, but they controlled the ancient trade route which connected rich centers in Syria, such as Carchemish and Aleppo, with the cities and ports of western Anatolia, including the land-bridge into Europe, by way of the easiest of the few passes through Taurus, that of the Calycadnos valley and the Pisidian Highway.⁴

¹ The old site of Tarsus has been excavated by Miss Hetty Goldman, whose brilliant discoveries have been described from time to time in this JOURNAL. Cf. *AJA.* xxxix, ff.

² Notably, Gjerstad. Cf. his notes in *RA.* iii, 1934, pp. 55 ff.

³ The expedition works by Deed of Trust under the aegis of the University of Liverpool, and our preliminary reports appeared in that Institution's publication, the *Annals of Archaeology and Anthropology* (hereafter quoted as *LAAA.*) xxiv, pp. 52-66, with pls. xi-xvii; also *ibid.*, xxv, pp. 12-23, with pls. v-xvi. At first Miss V. Seton-Williams assured the technical study of the prehistoric finds, followed in the next year by Miss Dorothy Marshall.

⁴ The Pisidian Highway is gained from the Calycadnos Valley by way of Isaura Vetus (at Zenzibar Kalesi). Thence it follows the chain of the eastern Pisidian Lakes northwestward as far as Pisidian Antioch. From this point two routes are possible: one turns southwest and joins the lower valley of the Maeander, to connect with ancient Miletos and Ephesos, both of which claim at least Hittite antiquity, while the other continues northwest *via* Afön to join the oldest trade route of all, that which led to the

The rôle of this place in the story of Cilicia would seem, then, to have been predetermined—a fortress or strong place commanding the important avenue of approach into the plain from the West—and this proves to have been the case throughout its history. It is true that in the topmost levels, two in number, representing periods of Byzantine-Arab occupation, and three if not four of pre-Roman date below, representing several phases of East Greek trade and culture, the remains of the defensive works were very denuded, but they could be traced.⁵ Lower still, four main occupational building levels, readily assignable, as a result of their cultural contacts, to the Hittite Period (ca. 1900 to 1200 B.C.), were found protected by stout ramparts. The one that protected the three uppermost of these (V-VII, fig. 2), resembled the standard fortifications of the Hittite capital at Boghaz Köi⁶ so closely as to suggest a period of Hittite domination, if not of military occupation. This may well have been the case, for it is archaeologically probable that the inception of these fortifications must be ascribed to the age of the father of Subbiluliuma, and it was under this ruler that Kizzuwadna (which embraced the districts of Adania and Tarsa) was reduced to vassalage.⁷ It may be suspected that our site represents the frontier station of Pitura, the refortification of which was tacitly allowed by the treaty with Sunassura.⁸

Still lower, and belonging to a much earlier period—for the buildings and strata of the third millennium B.C. have not yet been exposed—we found the remains of stout fortifications, set up in one or other of the periods into which the Chalcolithic Age is now subdivided. These will be described below. Meanwhile, suffice it to say that the remains of the fortified system which enclosed the site on Level XVI (fig. 3)—eleven and a half metres below the summit—rank among the most astonishing examples of ancient military architecture, the more so when we realize that they must be attributed, at the latest, to the middle of the fourth millennium B.C. Our main excavation had cleared and completed the record of Level XVI, when the war interrupted our program. We have, however, established the fact that nine, at least, of the twelve main levels excavated, were protected by enclosing walls, six of which were of exceptional character and strength. Though too small for a capital city, this strong place was large enough to support a limited population, and cultivable patches of the plain are close at hand.

With Level XVI,⁹ we reach in our excavations the depth of eleven and a half metres western coasts and the Troad by way of Sivri Hissar, later adopted by the Hittites and the Persians to become the Royal Road (cf. Ramsay, *Hist. Geog.*, pp. 27, 35 f.). The Pisidian Highway was described as the route of Xerxes in *JHS.* 1920, p. 89. It is noteworthy that no road of military or commercial value leads directly westward from the district of Isauria into the heart of Pisidia. The excavations of Miss Lamb at Kusura and earlier the explorations of Ormerod have demonstrated the archaeological importance of this line of communication. See, further, Ramsay on the "Geography of a Phrygo-Pisidian Glen," in the *Royal Geog. Soc. Journal* lxi, 1923, p. 280, with a Map.

⁵ Plans are published in *LAAA.* xxvi (Fifth Interim Report, 1938-9), pls. XLIV-V.

⁶ Cf. *LAAA.* xxvi, p. 91, fig. 1 (ap. Bittel, *Die Ruinen von Boğaz-Köy*).

⁷ Cf. Goetze, *Kizzuwatna*, p. 78.

⁸ *Ibid.*, p. 51.

⁹ Though estimates are subject to error, owing to the continuous erosion of the west side of the mound, the original area of settlement seems to have covered nine or ten acres, which is large for an Anatolian site. The area within the ramparts of Level XVI may have been as little as three acres, and that enclosed by the inner fortifications of Level VII only one and a half acres. The houses of domestic character within the walls are fairly spacious, and a population of 500 souls per acre is the maximum ad-



FIG. 1.—THE MOUND AT MERSIN: WORK PROCEEDING ON LEVEL VII



FIG. 2.—HITTITE FORTRESS UNCOVERED. AT LEFT, OCCUPATION WALLS OF LEVEL VIII



FIG. 3.—BUILDINGS OF LEVEL XVI, WHICH PROVED TO BE CONTEMPORARY WITH A LATE PHASE OF THE HALAFIAN CULTURE



FIG. 4.—FLOORS OF VARIOUS SHAPES—PROTO-CHALCOLITHIC PERIOD

(thirty-six feet) below the surface, but we are not yet half way down. Though inconspicuous from afar, being placed in a dip of ground, our mound rises twenty-five metres above our zero datum at the normal level of the river. Level xvi is thus thirteen and one-half metres above zero and it may at one time have seemed higher, for we have not touched the bottom of the original settlement at a metre and a half below present water-level. Geologists are of the opinion that it may be two or three metres lower still. Actually, the river is now working its way through alluvial deposits upon the old Miocene bed. Though our main excavation has reached only the thirteen-metre Level, we know that the culture represented in the lower half of the mound is entirely neolithic and in some ways unique. We should be quite in ignorance of its presence and character were it not for making soundings¹⁰ and cutting sections. This practice, regarded by the younger generation as obsolete and undesirable, is the only way of solving certain problems, and information of real value may often be lost by not making use of it. In any case, thanks to results obtained in this way, we are already able to summarize the cultural history of our site from beginning to end.

NEOLITHIC AGES are represented (between metre levels -1 to $+9\frac{1}{2}$), by forty-four floors of occupation, in which at various heights were seen traces of rough stone walls or foundations. Rough-hewn corner stones, which make their appearance in the topmost level ($9\frac{1}{2}$ m.), with laid stone floors and foundations of silos (fig. 4), herald a new period. Charred bones and fire ash were found in quantity at all levels above 2 m. Pottery, mostly brown or black, but sometimes red, and always burnished, was present in all levels from the bottom, the shapes being mostly simple bowls (comparable with Egyptian Badarian) and sometimes decorated with incised designs (fig. 5) made with a rocker tool and surprisingly stylized. Artifacts were nearly all fabricated in obsidian — natural volcanic glass — flint being rarely used. The obsidian was apparently derived from a surface deposit on the plateau, south of the Halys, between Nevshehr and Topada. Tools are typologically simple: they include awls, blades, scrapers, sickle blades, slugs, etc., and showed surprising skill. Especially beautifully made were the lance heads (fig. 6), which were new in type, though the industry is comparable with the flint industry of Judeideh in Northern Syria. Little radical change was observable in the elements of this neolithic culture throughout its ten-metre range, though it is possible to divide it into an upper and lower series at the seventh-metre level. Certain aspects of these discoveries seem noteworthy: 1. The early development of stylized pottery. 2. The resemblance of this obsidian industry to the flint industry of Judeideh. 3. The fact that the last neolithic settlement must have risen (with the growth of the mound) some eight metres (25 feet), at least, above the plain. Miles Burkitt, who expertized these neolithic remains for the Expedition, wrote on the subject of their date: "Accepting the usual dating

missible. I presume that the fort was occupied exclusively by soldiers of the garrison and their establishments, and that the return of peaceful conditions saw the resettlement of the civil population on terraces around the slopes as formerly.

¹⁰ Our preliminary soundings and trench-sections are described in *LAAA*. xxiv, pp. 62 ff.; xxv, p. 73 (Trench X), and xxvi, pp. 51 ff. (Cutting N). Results from trench X, which was 10 metres wide and 20 long, have been incorporated in the records of the main excavation, to which it served as Index (Cf. the Plans in *LAAA*. xxvi, pls. LXI-LXII).

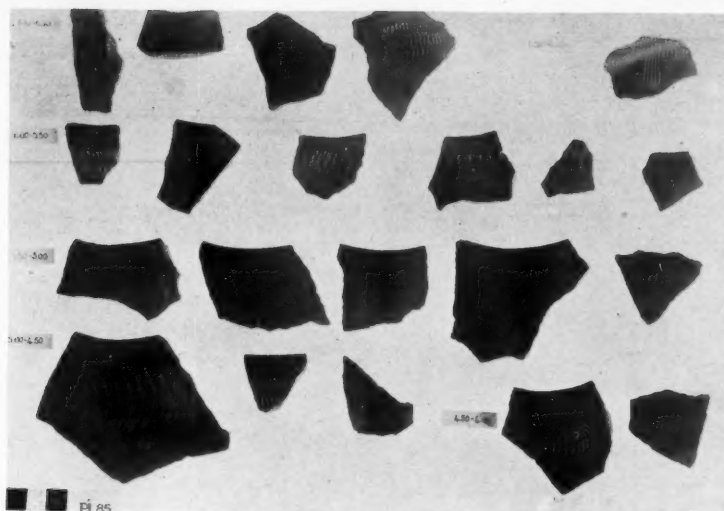


FIG. 5.—FRAGMENTS OF DECORATED NEOLITHIC POTTERY

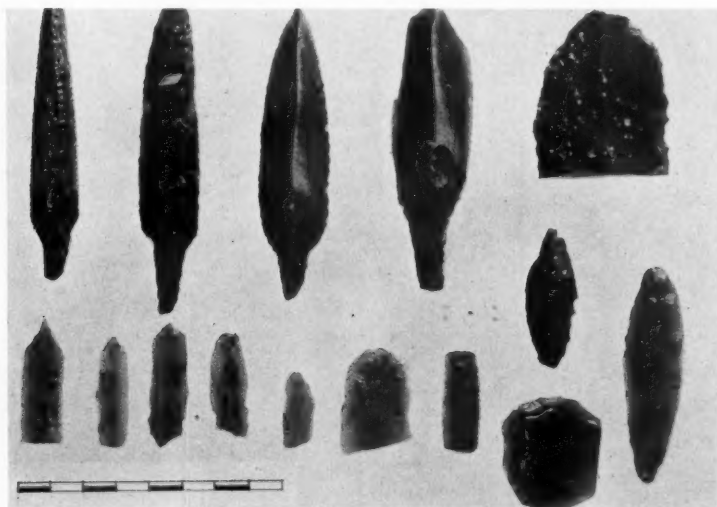


FIG. 6.—TYPES OF OBSIDIAN JAVELINS, ARROWHEADS AND TOOLS



FIG. 7.—VASES WITH WHITE LINES ON A BLACK BURNISHED SURFACE: LEVEL XII

for Tell Halaf culture" (which was traced in Level XVI above), "the base of the Upper Neolithic can hardly be later than 5000 B.C., while the lowest level reached must date to a thousand years earlier." Thus, "they seemingly go back in time to a period not far removed from the latest palaeolithic of Western Europe."

PROTO-CHALCOLITHIC Levels, three or more in number, visible in the section faces below Level XVI, remain to be excavated. Cuttings have disclosed specimens of distinctive local pottery, with burnished cream or pinkish-red surface, decorated with linear motives (including varieties of the chevron) in dull black or red (fig. 14). The presence of imported standard Halafian wares is to be anticipated at Level XVII. The fine working of obsidian and flint had ceased, but a small polished celt occurred (fig. 11, p. 11). No metal was found below Level XVI. When these levels first emerged, a transitional phase from the Neolithic seemed indicated, but the latest soundings suggest rather a fairly abrupt change in culture at about metre level 9.50.¹¹ As these levels are first on the list for excavation as soon as circumstances permit, discussion would seem superfluous. Noteworthy is the establishment thus early of the dominating note in the pottery of Mersin—a burnished slipped surface, decorated with matt linear designs, which prevailed until the destruction of the Hittite fortress about 1200 B.C., and still survived among the local fabrics of the East Greek period.

CHALCOLITHIC AGES (ca. 4000–3000 B.C.) are represented between metre levels 13.50–17.40, by five main building levels (XVI–XII), and several sub-levels. The lowest of these (XVI) had contact with a late Halafian (polychrome) phase, in which elements of the incoming Al Ubaid culture were also present. At this depth the architectural remains, military and civil, bear witness to an astonishing standard of development, while the ceramic art had also made notable progress in the perfection of hand technique and variety of design (fig. 14, r.).

The architectural remains on Level XVI illustrate a typical sector of the walled city, including its defensive rampart with a row of barrack rooms abutting against it, each room having two slit windows through the main wall for use of the defending archers. Within the enclosure was the better part of a detached house with a central court (fig. 3, l.). It offers some analogy to houses found by Speiser at Tepe Gawra¹² on level xv, but the defensive works are unique. The remains of a gateway in the north-west angle, protected by its guard room, complete the picture (see fig. 3), to which a stone mounting-block, preserved *in situ*, lends a touch of contemporary life. The continuous roof of the barrack rooms, abutting against the stout outer wall, would form an additional defensive platform. These rooms, though dedicated primarily to the defense of the town, evidently constituted also small domestic units. They had all been destroyed by fire, leaving the walls standing to waist height, with their contents broken and charred, but complete, sealed down inside by the fallen roof materials. Each room contained a grain-bin, grindstone and pounder, fire-place (usually an enclosed hearth), and cooking pots, as well as a number of storage jars

¹¹ The earlier soundings are described in *LAAA.* xxiv–xxv. The term, Upper Neolithic, used on p. 99 of the latter, and the captions to pls. are subject to correction, to conform with the fuller results obtained in 1939 (*LAAA.* xxvi, pls. xxviii–xxxii).

¹² Particularly buildings on Tepe Gawra xv as shown in *BASOR.* 66, p. 25, fig. 9. A further complete parallel is found in the drinking cup shown in *ibid.*, 70, p. 5, fig. 2 (left), which was found at Level xiv and seems to be identical with one of ours from Level xv.

and smaller vessels. The pots were, for the most part, built up in the local cream-slipped, burnished ware, decorated freely with varied linear motives in matt black (fig. 14), which now becomes established as the standard chalcolithic pottery of Mersin. Other wares and styles were present; the detached central building contained some rarer types, notably a black bowl, highly burnished, with handles like tabs rising from the rim and slightly outcurving (fig. 9); also some noteworthy trichrome jugs and bowls, in which the colors were yellow, black and deep red (fig. 10). Rosettes appear on some as the central feature of the decorative scheme. It is tempting, though risky, to compare these trichrome decorations with similarly colored designs from Jemdat Nasr and distant Bessarabia.

Even making allowance for the late or transitional character of one Halafian fragment, and the presence of Ubaid elements already at this level, we may ascribe our Level XVI very approximately to the middle of the fourth millennium B.C.¹³ As stated, it lay stratified below four other main chalcolithic levels. The impact of Ubaidian culture seems to have reached its maximum at Levels XV–XIV and that of Jemdat Nasr, though not so marked, at Levels XIII–XII. Uruk pottery, in particular the grey wares (fig. 15), and fragments of stone bowls which they simulated, became noticeable in the upper levels, and were so plentiful at XIII–XIV as to suggest their local origin. In architecture, a special feature on Level XV was a massive and solid gate-tower some 15 metres square, joined centrally to a sector of the town wall which had a mural bastion and an internal guard room. This design reappeared with some modification on the Level above.¹⁴

At Level XII there is ceramic evidence of contact with neolithic Macedonia, so that at this point a cultural and chronological link is established between predynastic Babylonia and prehistoric Europe. The early chalcolithic black wares of Alishar on the Anatolian plateau find their place in this sequence between Levels XIV and XII, mostly with the latter, while the elegant black vases, decorated with white flowing lines, found by Miss Lamb at Kusura in the Pisidian area, are also typical of Level XII (cf. fig. 7 and fig. 14, left, top).

THE EARLY BRONZE OR COPPER AGE, though fairly well represented by ceramic types, including some complete vessels, in which relations with the Troad, Thermi, Eutresis and other western sites may be discerned,¹⁵ has not yet disclosed any building levels. Presumably, these did not extend beyond the limits of the Hittite fortress in the area we excavated, but there should be little difficulty in locating them within that boundary when work resumes. Happily, this period is well represented by

¹³ It is suggested to me by Robert Braidwood, who has worked extensively among the Chalcolithic levels in the Amuk of northern Syria, that the presence of Ubaidian elements and other seemingly later motives at our Level XVI indicates a date for that level within the Ubaid Period, with corresponding modifications for the upper strata. This would not lead to a material change of date, which we agree may be approximated in very elastic figures at about 3500 B.C. My own view, based on limited personal experience of these cultures, is that they necessarily overlap in certain areas and that this overlap will tend to increase with the distance from their original centers of distribution. Any attempt to assign a date in years is, of course, largely guess work. On this question, cf. Gordon Childe, *BSA*. xxxvii, p. 33 f.

¹⁴ Cf. *LAAA*. xxvi (Fourth Report), pp. 39 ff.

¹⁵ Cf. *inter alia*, E. J. Forsdyke, *PAP*. Yortan, p. 12, A 67; Hetty Goldman, *Eutresis*, pp. 119, 160; Winifred Lamb, "Kusura," in *Archaeologia* lxxxvi, 1937, p. 25; also fig. 6, nos. 12–13.



FIG. 8.—DECORATED POTTERY FROM LEVEL XVI



FIG. 9.—DECORATED POTTERY FROM LEVEL XVI

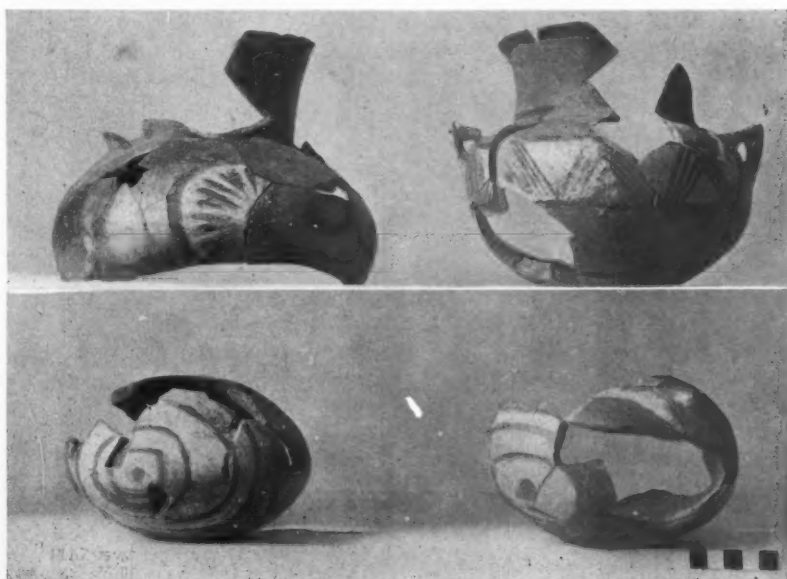


FIG. 10.—DECORATED POTTERY FROM LEVELS XVI AND XVII

buildings uncovered by Miss Goldman and her staff at Tarsus. It is an interesting phase, quite different culturally from that which preceded and that which followed. If one may judge from the material thus far obtained, the same culture with local variation permeated the whole plateau, suggesting a general kinship of population throughout western Anatolia at that time.¹⁶ On the other hand, relations with Syria and the East are not abundant, though one or two ceramic specimens of the period invite comparison with examples as far as Palestine.

MIDDLE AND LATE BRONZE AGES: These two distinct culture periods, though linked together historically within the sphere of Hittite political influence centered on the plateau, can be readily separated in Cilicia. The Middle Bronze Age is represented at Mersin by four building levels (XI-VIII), ranging in depth from 17.50 to 19.40 m. above our zero datum in the stream and dated approximately to the early Hittite period, 1900-1500 B.C. The house rooms are preserved to only one or two courses of their rough stone foundations, but give a connected plan,¹⁷ while the outer defensive wall, though traceable, seems to have been stripped of its building stone at some later time, probably when the foundations were laid for the Hittite fortress on Level VIII. Pottery of this age shows great change; the wheel is now freely used, with consequent effect upon shapes and technique (fig. 12). Points of contact or resemblance are with Syria rather than the plateau. To my surprise, signs of relations with Cyprus were rare. Consequently, searching for a term that would express the essentially local character of this culture and its period, I have called it provisionally Cilician-Hittite.¹⁸ Much material awaits further study; but we may single out the apparently Hittite character of a bronze battle-axe from these pre-imperial deposits (fig. 13). The LATE BRONZE AGE is represented by three building levels (VII-V) ranging from metre-level 20.30-22.50, and covering the period of Hittite domination from 1450 or 1400 B.C. till the fall of the empire about 1200. The architecture has been described by Seton Lloyd, who supervised the field operations.¹⁹ The outer rampart is a fine example of Hittite military architecture, and remarkably well preserved up to a certain height, above which it was probably half timbered, the whole being thickly coated in local concrete, and stucco. In plan it shows bastions at intervals along the outer face, and chambers within the thickness of the wall. A very thick artificial platform over the much pitted ground connected this, the principal defense, with an outer screen. This wall, standing on the very brink of the slope, proved to be largely denuded, though its position was determined. There is every reason to believe that this double system of defenses encircled the whole area, thus turning the city into a "formidable military post."

The pottery and other small objects of this period have been carefully studied by G. M. FitzGerald and a selection has been published, with his instructive observa-

¹⁶ In 1940 I found sherds comparable with those of Alishar, Ahlatli Bel, and other Copper Age sites of the plateau as far east as Erzingan, where there are two fine mounds at the east end of the plain. The sherds were deposited in the Museum at Ankara.

¹⁷ Cf. *LAAA*. xxvi (Fifth Interim Report), pl. xlv.

¹⁸ For a selection of the pottery types, bronze tools, etc., cf. *LAAA*. xxvi, pls. LXIII-LXXI. Bronze tools and weapons are shown on pl. LXXII, and the characteristic Hittite battle-axe in fig. 4, p. 140. Seals and miscellaneous small objects appear on pp. 134-5.

¹⁹ Cf. *LAAA*. xxvi (Fifth Report), pp. 93 ff., with pls. XLIV-XLV.

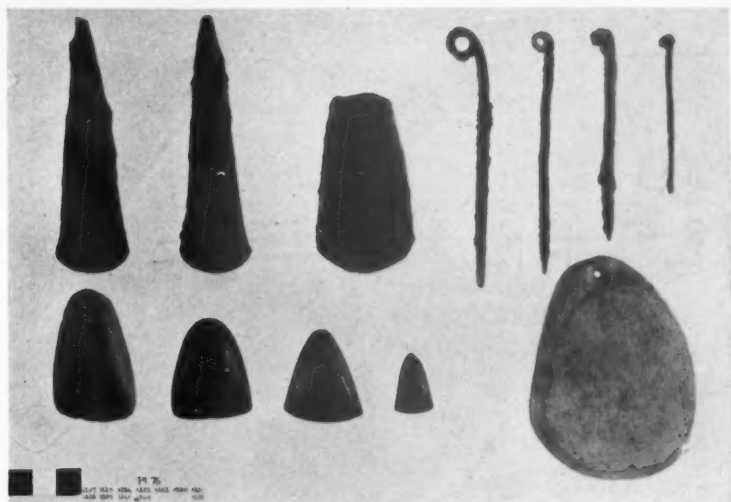


FIG. 11.—COPPER TOOLS AND MINIATURE STONE CELTS FROM THE
CHALCOLITHIC LEVELS



FIG. 12.—GROUP OF VASES OF CILICIAN-HITTITE STYLE

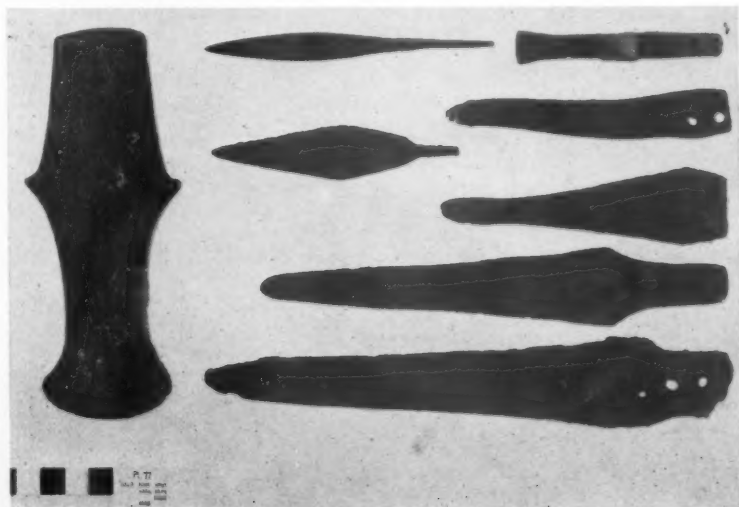


FIG. 13.—HITTITE WEAPONS OF THE PRE-IMPERIAL PERIOD (1900-1500 B.C.)

tions.²⁰ References are to Kusura and Troy, Alishar and Boğhaz Köi, Enkomi and Syria, and in particular to Miss Goldman's findings in the neighboring site of Tarsus (as described in this JOURNAL XXXIX, p. 534, etc.). The approximate date of the fall of this fortress, which had survived intact to serve Level v, is well indicated by the related deposits. In the thick burnt layer at Level v was found some late Mycenaean pottery, and just above were some Hellado-Cilician wares of the twelfth century B.C.—the Levanto-Helladic wares of Gjerstad's earlier studies.²¹

The IRON AGE was represented by two or three confused building levels between metre levels 22.50 and 24.00. A splendid and instructive series of East Greek pottery and related specimens rewarded FitzGerald's careful work upon these very tangled strata. The pottery has now been studied and published by Richard Barnett,²² who received leave from his duties at the British Museum to join the Expedition. The specimens, classified by periods, comprise: Mycenaean types of the thirteenth and twelfth centuries B.C.; Sub-Mycenaean and Geometric Styles (including Cypriote) of the eleventh–eighth centuries; Protocorinthian, Corinthian, Camiran Wild Goat style, Fikellura, Cretan (possibly), Cypriote, Ionian, and other East Greek fabrics, also grey Bucchero ware, all of the Orientalizing and Archaic periods, of the seventh–sixth centuries B.C.; and lastly, Attic and East Greek wares and lamps of the fifth–fourth centuries B.C. In the light of Barnett's illuminating study of the specimens, we quote without comment one or two of his observations. "Greek sherds from Asia Minor have a special interest. . . . Elaeus, Ephesus, Larissa, Sardis, Miletus, Phocaea, Colophon and other sites, have all been scenes of greater or less activity, but the silence of the excavators has usually left the world little the wiser about the Greek pottery which in most cases they found there. Troy, Smyrna, Gordion and Tarsus are among the few exceptions." Barnett also points to the presence of a number of late Mycenaean sherds in the first level of occupation after the city's destruction, as indicating the presence of Achaeans among the newcomers—in conformity with the Egyptian record.

GRAECO-ROMAN PERIOD: There is a total gap in the evidence of occupation of Mersin Hüyük between the fourth century B.C. and the eighth century A.D. The only explanation for this seems to lie in the fact that in the meanwhile Pompeiopolis, which stands by the sea in full view from the top of our mound, at a distance of some six miles, arose in the meanwhile and proved more attractive. The solitude of the Souk Sü site remained unbroken apparently for a thousand years.

MEDIAEVAL PERIOD: Represented by two very disturbed building levels on the crest of the mound, at the twenty-fourth metre level and filling the twenty-fifth which is the highest. The walls surrounding the settlements had been pilfered, and the plans of houses could no longer be recovered. None the less, some extremely interesting ceramic and other pieces gave evidence of two periods. They were examined on the spot by Miss Florence Day, who kindly came over from Miss Goldman's work at Tarsus for the purpose. From her notes we find that the early series belongs to the eighth–ninth centuries A.D., and comprises white clay pottery, pressed wares,

²⁰ *Ibid.*, p. 131 and pls. LIV–LIX.

²¹ For the Swedish Cyprus Expedition, cf. also *RA.* 1934, p. 190 f.

²² Barnett's complete account appears in *LAAA.* XXVI, pp. 98 ff., with pls. XLVI–LIII.

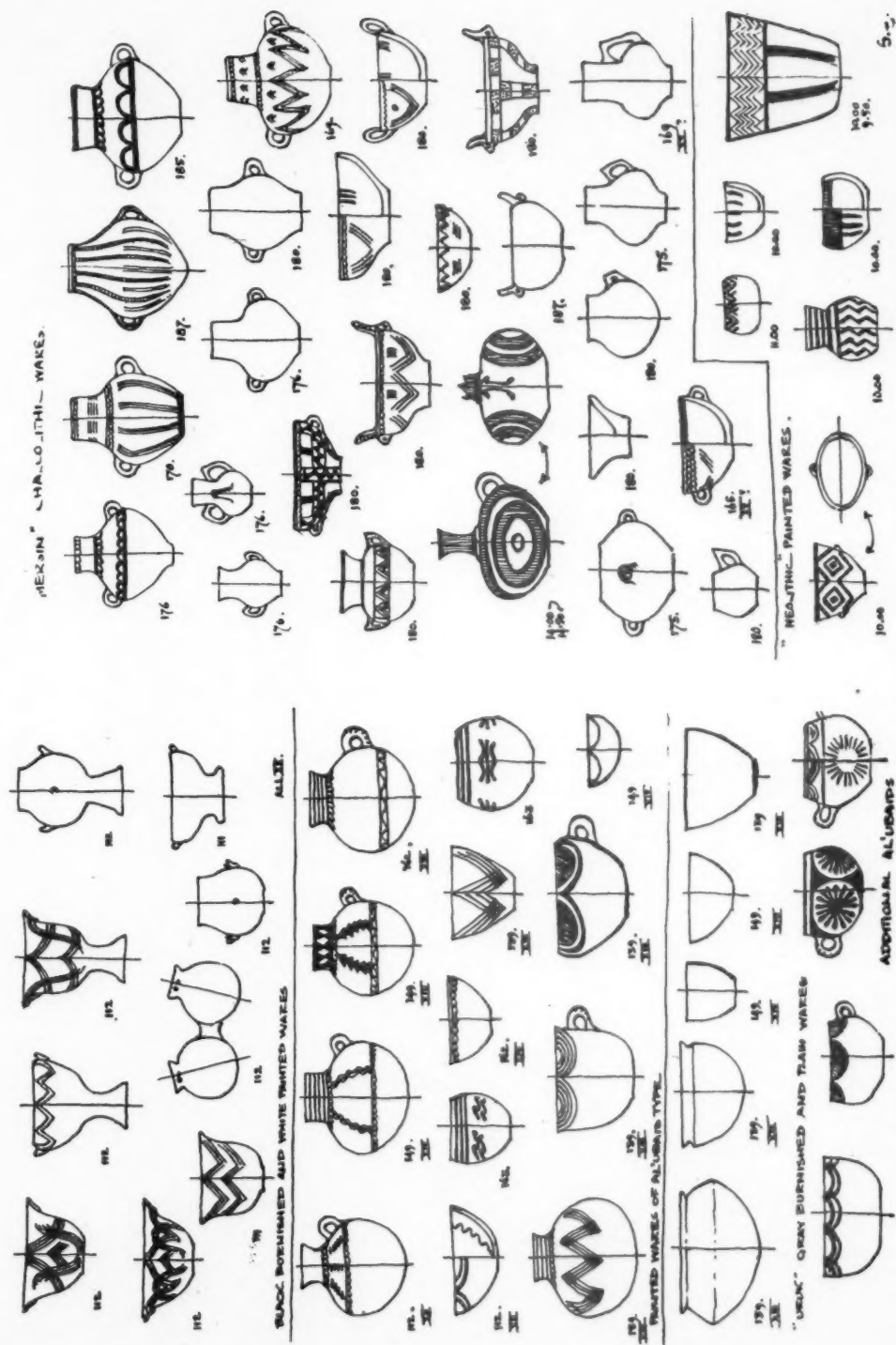


FIG. 14. — SKETCHES SHOWING THE STYLES OF CHALCOLITHIC POTTERY. THOSE CALLED NEOLITHIC IN THE RIGHT-HAND SKETCH REPRESENT THE LOWEST AND EARLIEST PAINTED WARES ON THE SITE. PROBABLY THEY ARE PROTO-CHALCOLITHIC

cooking pots, glazes, monochrome green bowls and lamps, as well as a colorless glass spoon inscribed in Kufi: "Kasim made it." The later series (thirteenth-fifteenth centuries) included pieces of Mamluk pottery, and also a fine specimen of Persian lustrous ware of the earlier century. It comprised in the bulk, glazed wares, bowls and lamps, and a graffito sherd in cream and brown, on which were preserved the last letters of a Kufi inscription; also another fragment in green and brown which in parts was both incised and painted and elsewhere painted only. These troublous centuries for Asia Minor evidently had also their moments of respite. May they soon return, that its brave people may fulfil their destiny.

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THREE NOTES ON BASSAI

I

IN THE Classical Collection at the University of Chicago is a fragment of marble, which was found by Professor William B. Owen, in April, 1901, just west of the temple at Bassai (fig. 1). The height of the fragment is about 15 cm. It belongs to a corner and is fairly well preserved at the angle, but no other original edge remains. The marble is similar, at least, to that of the temple.

Though the photograph is fairly clear, some description may be useful. There is a small palmette, upside down, at the corner. Above this, on each of the adjacent sides, is the lower part of a half-palmette. On the right the beginnings of three petals are perceptible, all starting from the angle. Also part of a scroll is visible on each side, with the center of the spiral drilled; the two scrolls differ in direction. On the right side there is a small projection below the lowest petal, which may be accidental; the surface is not dressed so evenly as to exclude this possibility. Or perhaps it is the end of something in relief, which continued where there is a break in the surface leading to the broken edge. This break seems to curve upward, and it is clear that there was no horizontal line extending from the projection to the edge.



FIG. 1.—FRAGMENT FROM BASSAI, CHICAGO

It is evident that, if the fragment belongs to any part of a normal Doric temple, it is the corner of the sima; and the abnormal temple at Bassai, as far as known, offers no other place for it. The right side would be over the horizontal cornice, the left side over the raking cornice, at the northwest or southeast corner of the temple. One piece of the sima, in the British Museum, has been illustrated several times, most recently from a photograph,¹ and another was shown by Blouet. These two are alike in carving, and I have seen no mention of any fragment with different carving. Cockerell² and others drew the corner as they expected it to be from the known pieces, with the decoration continuing unchanged to the corner. Our fragment does not correspond to their expectations.

¹ *MMS.* iv, p. 225.

² *The Temples at Aegina and Phigaleia*, pls. VI-VII.

In the first place, the heart of the palmette at the corner is adorned with the small inverted palmette. Then the scrolls from the lotuses nearest the corner on each side, instead of going down toward the corner, remained approximately horizontal and met above the heart of the corner palmette, thus in effect cutting it in two. The small projection would be the end of the lowest leaf of the lotus, appearing at a lower level, in relation to the palmette, than was expected. These changes are surprising, but may be defended as consistent if the inverted palmette is desired. Such inverted palmettes do occur at corners, not uncommonly, but I have not observed any other case in which a lotus-palmette pattern is modified in this way to provide for them, or any other *sima* with ornament known to behave in this way at the corner. Furthermore, the insertion of the inverted palmette does not at all account for the most notable difference between our fragment and the known pieces of the *sima*, which is in another feature of the large palmette: the lowest petal unmistakably turns up at the end, whereas in the known pieces all petals turn down. Whether they all turned up in the fragment, as is to be expected, or whether the palmette belongs to the rare type in which only the lowest petal on each side turns up, it clearly differs from all the palmettes known to belong to the *sima*; and one begins to wonder whether the fragment belongs to the *sima* after all.

As far as its form is concerned, it could belong to a lateral akroterion. According to Cockerell, the akroteria of the temple were not found, but in all probability³ they would be on a larger scale than the fragment and would stand on a level base, so that there would be no reason for the differing directions of the pattern on the two sides. The fragment could well belong to an akroterion of a sarcophagus, or of something like the Ludovisi and Boston thrones, or of an altar. The last would be much the most probable, particularly at Bassai. Though apparently no traces of an altar have been found there, it is very probable that there was one. Altars with pediments and floral akroteria are known from vase-paintings⁴ and have been found; at Olynthos⁵ there are some small ones, in which the akroterion is in one piece with the rest, and the ornament on the side over the raking cornice is clearly tilted as in the fragment.

The attribution to an altar must be provisional only, since the relatively recent investigations at Bassai are largely unpublished and may include facts that would justify other conclusions.

II

Dinsmoor has shown, from the slight depth of the pediments at Bassai, that it probably was not originally planned to have sculptures in them; and, from the cutting at the bottom of the tympanon wall in both pediments, that sculptures were eventually placed in them.⁶ That is, the placing of the sculptures required not merely a change in intention, but a reworking of the tympanon after its completion. This circumstance strengthens the assumption that would confidently be made without it, that the pedimental sculptures belonged to the latest period of work on the build-

³ Contemporary buildings with akroteria of analogous form are scarce. The akroterion at Sounion, if correctly identified, would be only 0.45 tall, the height of the tympanon being 1.444 (Δελτ. i, 1915, p. 24).

⁴ *CVA*, Oxford, i, III, I, pl. 26, with reference in text.

⁵ *Olynthus* ii, p. 91, fig. 177; cf. *Olynthus* viii, p. 321, pl. 73.

⁶ *AJA*, 1939, p. 28 f.

ing. The frieze, on the other hand, consists of blocks that were necessary for the upper part of the inner building of the temple, and had to be in place before the temple was structurally complete, and it is clear that the blocks were carved before being put in their positions. Hence, whereas the pedimental sculptures could very well be considerably later than the frieze, it is very difficult to suppose them earlier. Consequently, it is hard to accept a recent hypothesis, according to which the "Terme Niobid" and its two companions would belong to the Bassai pediment.

There are only two considerations of any consequence that tell in favor of this hypothesis. One is that the style of the three figures is not wholly unlike that of the frieze. The other is that they are surprisingly thin, from front to back, thin enough to suggest not only that they belonged to a pediment, but that they belonged to the notably shallow pediment at Bassai. The second argument is stronger than the first, but it does not seem that either or both balance the chronological difficulty, to say nothing of constituting proof of the theory.

A statue in the Louvre is known to me only from the illustration and caption in *Encyclopédie photographique de l'art, Musée du Louvre* iii, 1938, p. 177 (here fig. 2). It is said probably to be a Niobid; to be marble, the kind of marble not stated; and probably to have belonged to a pediment. The height is given as 1.14; whether this includes the plinth is not clear. If not, the upright stature of the figure might be something like 1.37 m. Dinsmoor has calculated that the pedimental figures at Bassai ought to be from 1.51 to 1.60 m. in upright height, so the Louvre statue would be too small. However, the law that determines those figures is a generalization from a very small number of examples. Besides, in the case of the Niobids some difference in scale among the figures is suggested by the subject itself. I do not know the dimension in depth of the statue. At all events, if this figure belonged to any pediment, it ought to have been to the pediment at Bassai, for in style it is much closer than any other known sculpture to the Bassai frieze.



FIG. 2.—STATUE IN LOUVRE

This resemblance is the more convincing because it is not based on any single figure in the frieze, but on many. Compare slab 525 for the drapery of the right leg and abdomen, 530 and 537 for the drapery between the legs, 535, 540, 522, and 524 for the oval "islands" in the drapery; these are particularly important, since they are conspicuous in both frieze and statue and are very hard to find in other sculptures.

III

When Pausanias visited Bassai (viii, 41, 7-9) he apparently found no temple-statue. At least he mentions none as present, but refers to a previous passage (viii, 30, 3-4) in which he mentions a twelve-foot bronze Apollo at Megalopolis, which had been brought from Bassai as a Phigaleian contribution to the adornment of

Megalopolis. That this had been the actual temple-statue is not definitely stated, but seems to be implied.

There were found at Bassai several marble pieces of a colossal statue, evidently akrolithic.⁷ This is accepted as the temple-statue, the successor to the bronze, if Pausanias' account is correct. It has been thought improbable that a temple-statue should be transferred as he describes; and if we question Pausanias' account, the akrolith would naturally be considered contemporary, or nearly so, with the temple. This possibility is strengthened by information from the British Museum, which, though not based on recent examination, indicates that the pieces are of the same marble as the temple, an uncommon marble, like Parian but not Parian, or at least not typical Parian. If the bronze Apollo was removed to Megalopolis in or about 369 B.C., the akrolith would be set up soon after that, for a temple as important as Bassai would hardly be left untenanted long. In any case, there is a strong probability from the circumstances that the statue was not later than the fourth century B.C. Whether this conclusion would be indicated also by the workmanship of the fragments I do not know, but in such small pieces there probably would be nothing decisive.

One of the fragments is a foot wearing a sandal. Cockerell's drawing is presumably accurate, since the fragment is in the British Museum and was available to him when he published the book. As drawn, the sandal clearly shows the indentation at the front, which occurs in the sandal of the Praxitelean Hermes and has been claimed as a proof of Hellenistic origin for that statue.⁸ In the other features of the Bassai sandal there is nothing unexpected for the fourth or fifth century: the arrangement of the straps, the cross-strap with border, and the profiled sole are found in the archaic Attic sandals collected by Eichler,⁹ and the plaited thong for a toe-strap is probably favorable to an early date.¹⁰ Consideration of the Bassai sandal materially weakens the argument based on the indentation at the front of the sandal of the Hermes.

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⁷ Cockerell, *op. cit.*, pl. XVI.

⁸ *AJA.* 1940, pp. 213-221 (Wallace), especially p. 215 f. This is a valuable study which might well be published in fuller form, but it is vitiated by the disposition to assume that the sandals in Roman copies are 100% Roman and zero % copies. The feet are modern in the statue cited in her note 31, according to Blümel. Further comments by Miss Bieber (*AJA.* 1941, p. 62 f.). Cf. now *AJA.* 1942, pp. 366 ff.

⁹ *JOAI.* 1913, pp. 86-102.

¹⁰ Cf. *AJA.* 1940, p. 217.

A FURTHER NOTE ON BASSAI

WE are greatly indebted to F. P. Johnson for bringing to light one of the miscellaneous fragments of Greek architecture which, in accordance with a custom greatly to be deplored, had been carried off by foreign visitors and thus, for the time being, lost to the scientific world.¹ It is to be hoped that other pieces similarly lost will be published by their possessors. It is generally preferable to leave such pieces either on the ground or in a local museum, where they may be available to students. It would, for instance, have been very unfortunate if a single insignificant marble fragment only 0.11 m. high, sketched by Haller in 1812 and left at Bassai,² had been carried off by a souvenir hunter; it was picked up again in 1908 and deposited in the Athens Museum, thus preserving the sole evidence that there were once two rows of tiny acanthus leaves at the bottom of the Corinthian capital.

The Chicago fragment (fig. 1) is another unique piece and thus of special importance. There is no basis, however, for Johnson's hesitation to assign it to the temple itself; the fragment is not a bit of acroterion or altar, but very definitely comes from the corner of the sima at the right end of one of the pediments of the temple itself. The variation in the pattern is due merely to the freedom and variety permitted the carver's imagination in the problem of turning a corner, just as, in the marble Ionic treasures at Delphi, the corner treatments are sometimes very different in the same moulding of the same building. Similarly, at Bassai, it was intended that something special should be devised for the obtuse angle at the apex of the sima; but the carver never got around to this problem and left a small portion blank.³ The importance of the Chicago fragment is increased by the fact that Haller had missed it; as he says in his unpublished notebooks, "Je ne pouvois pas trouver aucune reste des coins de la susdite corniche, et des têtes de lion qui ordinairement doivent y être appliqué."⁴

With regard to the pedimental sculptures at Bassai, the stylistic sequence which indicates that they must have antedated the internal frieze, a sequence to which Johnson objects, has likewise been questioned by Carpenter;⁵ but it is a matter which I had already taken into consideration.⁶ For the question of the exact moment at which pedimental sculptures ought to be applied to a temple must always have been one of convenience; it is not necessary to assume the sequence (1) metopes, (2) internal frieze, and (3) pedimental sculptures, merely because such was the

¹ *AJA.* xlvii, 1943, pp. 15 ff; I am indebted to Johnson for having permitted me to examine the fragment itself.

² Haller von Hallerstein, MS notebooks; cf. also Cockerell, *The Temples . . . at Aegina and . . . Bassae*, 1860, pl. XV, fragment a.

³ Haller's MS notebooks; cf. Cockerell, *op. cit.*, pl. III.
⁴ Therefore Cockerell's statements (*op. cit.*, p. 50) that the lower extremities of the pediments showed signs of being prepared for acroteria and that "the stones to which they (the lion heads) had been attached were still discovered," must have been based upon misapprehension.

⁵ *Memoirs of the American Academy at Rome*, xviii, 1941, pp. 28-29. In another recent discussion, to which I did not have access in 1939, the statues are assigned to an Attic school (Agorakritos) of about 440 B.C. and it is doubted that they come from a pediment (Picard, *Manuel d'archéologie grecque, La Sculpture* ii, pp. 685-692).

⁶ *AJA.* xliii, 1939, pp. 31, 42.

case in the Parthenon. To infer, after this lapse of time, that it was unreasonable to decorate the outside of a temple before completing the inside, can only be a matter of subjective opinion; we know, in any case, that the outsides of temples were built before the insides,⁷ and that sculptured metopes on exteriors were carved before any internal sculpture was undertaken, and I can see no objection to similar priority for the external sculpture of the pediments.

As for the statue in the Louvre (fig. 2) suggested by Johnson as a substitute for the Rome-Copenhagen Niobids which I have assigned to the south pediment at Bassai,⁸ it seems very clear that this Louvre statue was not a pedimental statue at all, or at any rate that it did not come from Bassai. With regard to its provenance nothing is said by Johnson. On the photograph which he publishes, however, it is to be observed that a label pasted at the top of the high block under the left foot bears the number "3072."⁹ Consultation of the Louvre catalogue under this number reveals that the figure came from the Miollis Collection.¹⁰ If, in turn, we consult F. A. Visconti's description of the collection formed by Comte Alexandre de Miollis,¹¹ the French governor of Rome in 1807-14, we see that there were two such statues, forming exact counterparts or pendants, one facing toward the left and the other, the Louvre statue, toward the right. While most of the collection remained in the Villa Miollis on the Quirinal at Rome, now the Villa Aldobrandini a Magnanapoli, in the possession of the Aldobrandini-Borghese family, several were scattered. These two figures, in particular, were transferred to the Villa Mellini, and then were acquired by Favart and installed in the Villa Lante, likewise at Rome, where they were described by Von Duhn in 1878.¹² The figure facing toward the right was apparently acquired by the Louvre after 1900;¹³ the other may still be in Rome. In any case, the existence of an identical pair of statues in any Greek pediment is almost inconceivable, and militates strongly against such an interpretation. The dimensions, furthermore, seem quite inadequate for such a temple as that at Bassai; Von Duhn gives the total height from the bottom of the plinth to the top of the restored modern head in the other example as only 1.30 m., and says that the Louvre example is similar, its height as published in the Louvre

⁷ Apart from a few exceptional examples on a colossal scale, such as the Polykrates temple at Samos, the builders of which, foreseeing the long duration of the work, built the cella first.

⁸ *AJA.* xliii, 1939, pp. 27-47.

⁹ *Encyclopédie photographique de l'art, Musée du Louvre* iii, 1938, pl. 177. There are also Giraudon photographs of 1926 (no. 26,734) and 1929 (nos. 29,145-29,146) of which Margarete Bieber has kindly shown me copies.

¹⁰ Musée national du Louvre, *Catalogue sommaire des marbres antiques* (ed. of 1918), p. 21: "Femme drapée marchant à droite, le pied gauche surélevé. *Anc. coll. Miollis. Rome.*" *Id.*, ed. of 1922, p. 19.

¹¹ Comte Alexandre de Miollis [F. A. and . . . A. Visconti], *Indicazione delle sculture e della galleria de' quadri esistenti nella villa Miollis al Quirinale*, Rome, 1814, pp. 9, 70, 72, and in view behind p. 44 (the figure facing right is the Louvre statue). The vague Visconti sketches are reproduced by Reinach, *Répertoire de la statuaire grecque et romaine* ii, 384, 8 (the Louvre example) and 385, 1 (its companion) as "autrefois à la villa Lante."

¹² Friedrich Matz and Friedrich von Duhn, *Antike Bildwerke in Rom*, Leipzig, 1881, i, pp. 250-251, nos. 932-933 (the latter being the Louvre statue), under the title "Weibliche Personifikationen in lebhaften Bewegung." Von Duhn is not quite certain as to the identity of the statues (then in the Villa Lante) with those depicted in the Miollis Collection; but the Louvre catalogue and the exact correspondence of Von Duhn's description leave no doubt.

¹³ The statue is not listed in earlier editions of the *Catalogue sommaire*, e.g., those of 1896, 1898.

catalogue being 1.14 m. The thickness is unknown, and the material is given merely as Gr(iechische) M(armor). Both figures contain very considerable modern restoration. The entire upper half of the Louvre statue together with the arms is modern, as is also the entire bottom, including the front part of the left foot and the high block under it (of which the upper inner corner under the heel seems to be original), the bottom of the drapery, and the plinth with the front part of the right foot; but these restorations seem to be essentially correct. The three-stepped pyramid resulting from the block on which the left foot is placed, the lower but very formal rectangular plinth under the main part of the statue (quite unsuitable for fifth-century pedimental statues), and the continuous formal plinth, 0.11-0.12 m. high, set into the cutting along the bottom of the tympanum at Bassai, would form a most improbable composition.

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TWO TERRACOTTA FIGURINES FROM TARSUS

THE terracottas discussed in this paper were found in the course of excavations carried out at Gözli Kule, Tarsus, and reported upon from time to time in the pages of this JOURNAL.¹ The figurine (fig. 1), to which I have given the title of Mime, was reproduced in the first of these reports,² but with a minimum of comment and an interpretation which, while not fundamentally erroneous as it assigned it to the group of mimes, certainly did not suggest its real significance. This could only be arrived at by more intensive study and the comparison of a number of relevant but widely scattered monuments.

Description: Complete except for a small piece between the legs. Elderly man with emaciated body on which the ribs are indicated, in semi-kneeling position to left; right leg advanced; both arms outstretched with hands joined at the tips; wears a pointed cap and loin-cloth beneath which the phallus, now preserved only in small part, protrudes. Clay buff with orange tinge. Traces of color: black cap, red on nude parts of torso and background, loin cloth deep pink, base greenish-blue. The legs may have been colored differently from the upper body, as there were traces of a lighter pink. Height, 0.151 m. Height of base, 0.021 m.

To this general description one must add certain significant details. The head, with its characteristic combination of realism and exaggeration, belongs to the large group of so-called caricatures or grotesques which have been found in great quantity in Asia Minor and Egypt, in southern Russia, and as far west as Italy. They are fairly abundant in Greece itself and occur, indeed, sporadically wherever the terracotta figurines of late Hellenistic and early Roman imperial times penetrated. The lean body speaks of privation and physical misery. The face with its lined and sunken cheeks, its thick-lipped open mouth and heavy nose and its pervasive air of stupidity, corruption, and sordid cunning, might at first glance be taken for nothing more than a realistic representation of some low fellow at home among the rabble which frequented the Tarsus water front. The pointed cap and loin-cloth, garb of the common laborer, and the attitude which suggests that of a rower, would well accord with this interpretation. But there are two features which demand a different classification. They are the large phallus and the startling asymmetry of the eyes, of which one is circular and the other a long, half-closed slit. One immediately recalls a mask from Tarentum (fig. 4) which Margarete Bieber assigns to farce and a relief of an old woman (fig. 3), described as an old nurse of New Comedy, blind in one eye.³ Our figurine, too, might be described as blind in one eye, for even now blindness or semi-blindness due to trachoma is very prevalent in the Near East,

¹ *AJA.* xxxix, 1935, pp. 526-549; xli, 1937, pp. 262-286; xlii, 1938, pp. 30-54; xlv, 1940, pp. 60-86.

² *AJA.* xxxix, 1935, p. 531 and fig. 7. "A Mime dancer impersonating a slave."

³ Bieber, *The History of the Greek and Roman Theater*, p. 417, fig. 549, Mask of Farce, Tarentum; p. 196, fig. 277, a terracotta relief in Florence, Museo Archeologico, called Mask of Old Nurse. Also, Bieber, *Die Denkmäler zum Theaterwesen im Altertum*, p. 169 f., no. 172, pl. 107, 4, where it is described as a fragment of a terracotta revetment. "Oberhalb einer dicken Epheuguirlande in Hochrelief die Maske einer alten Frau mit hoher dreieckiger Stirn, schlichtem, gescheiteltem Haar, gedrehter Seitenlocke, schmalem, über dem Scheitel zur Schleife gebundenem Band um den Kopf. Das linke Auge ist ausgelassen." As a matter of fact, we are told by Pollux (iv, 141) how the blindness of Thamyras was depicted: by making the eyes of different colors, τὸν μὲν ἔχων γλαυκὸν ὀφθαλμὸν τὸν δὲ μέλανα.



FIG. 1.—TERRACOTTA FROM TARSUS



FIG. 2.—TERRACOTTA FROM TARSUS



FIG. 3.—TERRACOTTA RELIEF IN FLORENCE



FIG. 4.—TERRACOTTA MASK FROM TARENTUM



FIG. 5.—BRONZE STATUETTE IN FLORENCE



FIG. 6.—TERRACOTTA IN BERLIN

but I doubt whether this is true in either case. The resemblance to the mask suggests that the asymmetry of the eyes is designed as a conventional comic effect.⁴ The pointed cap was identified with the clown or buffoon as early as the days of Old Comedy.⁵ Another figure (fig. 5),⁶ this time a bronze statuette, duplicates the meager costume of pointed cap and loin-cloth and has the characteristic large nose of the buffoon. Thus our terracotta, by its facial peculiarities and by its costume, is identified with those public performers who were phallic but wore no mask, although many features, such as a false or putty nose, enlarged ears, an artificial hump and tusk-like teeth were used to change or distort the features. I judge that paint must have been used to produce on the face of the mime the effect of the distorted eyes of the masks. Many of the actually deformed, it is known, entered the profession of mime and exploited their physical handicaps in the market-place and on the stage, as well as in private entertainments of the wealthy. The popularity of the deformed was based primarily on three things: on the appeal they have made at all times, including our own, to the primitive sense of humor. Anyone who has lived in eastern Mediterranean countries knows how the village idiot and the hopeless cripple are the objects both of cruel mockery and careless but kindly indulgence. Secondly, popular superstition believed, and in some countries still believes, in the talismanic qualities of the deformed.⁷ And lastly, one must remember that in the ancient world, with its sombre background of slavery, man was a commodity. The slave who is fed must be used; if he can serve no other purpose, then he must serve for entertainment.

Gisela Richter, in her publication of a *Statuette of a Grotesque Figure*,⁸ maintained that the so-called grotesques were neither the products of an Egyptian or more specifically Alexandrian workshop illustrating the realistic tendencies of that art, nor yet charms against the Evil Eye,⁹ but rather that they were one and all mimes. Unfortunately, these "grotesques" have in the majority of cases survived only as heads, and therefore our figurine is of particular value in that it preserves a very characteristic action, and one which falls in with the theory of Miss Richter; for it is possible to define more closely the type of performance given by these mimes wearing the loin-cloth, which characterizes a low grade of society, and the pointed cap—immemorial hall-mark of the clowning entertainer. The mime of our figurine can in no case be the mime who occupied the stage in late Hellenistic times, and dominated it in the days of Rome, but the popular, frequently itinerant, entertainer with a vaudeville repertoire of dancing, singing, juggling, magic tricks and impersonations.

⁴ In general, the make-up of the Mime has much in common with the masks of Roman farce (Bieber, *The History of the Greek and Roman Theater*, figs. 546–551) in which asymmetry of the two sides of the face, of the mouth, fig. 550, and of eyebrows, fig. 551, is marked, features ultimately derived from Greek New Comedy (*ibid.*, p. 182). ⁵ *Ibid.*, fig. 94, fig. 113 and many others. ⁶ *Ibid.*, fig. 555.

⁷ This theme has been interestingly treated by Doro Levi, "The Evil Eye and the Lucky Hunchback," *Antioch* iii, pp. 220 ff.

⁸ Richter, *The Metropolitan Museum of Art: Greek, Etruscan and Roman Bronzes*, pp. 81–84, no. 127; *AJA.* xvii, 1913, pp. 149–156. Bieber, *The History of the Greek and Roman Theater*, p. 419, fig. 554; Dieterich, *Pulcinella*, p. 169.

⁹ Alan J. B. Wace, "Grotesques and the Evil Eye," *BSA.* x, 1903–1904, pp. 103 ff. suggested that these figurines were charms against the Evil Eye. He doubts their specifically Alexandrian origin.

On a bronze vase, found in France in a Roman villa of the Rhône Valley and now in the museum of Saint-Germain-en-Laye,¹⁰ the scene is that of a feast (fig. 7). Amphora and fillets hang upon the wall. There is music and dancing and one of the performers stands next to a low three-legged table holding a cup and ladle and a third undefined object, possibly a fillet, as if he were performing some balancing trick. The flute-player is a hunchback and the build of the others suggests that they, too, are dwarf-like or deformed. Dancing and rhythmic motion, juggling and acting had been the accompaniment of feasts among the Greeks from early times,¹¹ but they received an extraordinary development among the Romans when imperial conquests had made life truly cosmopolitan and the slaves from the four corners of the earth had both enriched and debased life by the customs they brought with them. To this natural infiltration of foreign customs through the slave-market must be added the ever increasing interest in the Near East among all classes of Roman society as shown by the introduction, in spite of official opposition, of alien oriental cults.

A glance at the feast of Trimalchio gives us the picture of continuous stylized motion combined with a low form of clowning and mimetic art. "'Now,' said Trimalchio, 'let us have dinner.' . . . As he spoke, four dancers ran up in time to the music and took off the top part of the dish. . . . The man came up at once, and making flourishes in time to the music pulled the dish to pieces. . . . But at last the acrobats came in. . . . The worthless slave . . . imitated trumpeters for more than half an hour. . . . Finally, he came right into the middle of the room, and shook a pipe of reeds in imitation of flute-players, or gave us the mule-driver's life, with a cloak and whip. . . .'"¹²

Both our terracotta and the figure on the extreme left of the bronze vase are performing what Emmanuel calls the dance of the joined hands¹³ in which "the action is not confined to the feet but both head and hands function rhythmically." It is used most often by character dancers, which would account for its popularity with mimes. "The dance," says Emmanuel, "is of barbaric origin, most likely Asiatic, and, in a happy moment, was adopted by the Greeks." A glance at the illustrations in his book, figures 460-480, will show the varieties of pose and action permitted by the dance. In the dancers of his fig. 479¹⁴ we have something very close to the figurine of Tarsus, though taken at a moment of more violent motion. Anatolian and orgiastic in origin, the dance has its moments of frenzied action and others of mystical withdrawal. It accompanies Dionysos on his wanderings and the god himself falls under its spell.¹⁵ A second terracotta from Tarsus (fig. 2)

¹⁰ Reinach, *Musée de Saint-Germain-en-Laye, Bronzes figures de la Gaule romaine*, p. 309, no. 394, with bibliography. The reference to Schreiber, *AM.* is wrongly given; it should read x, 1885, p. 392. Dieterich, *Pulcinella*, pp. 159 ff.

¹¹ The classic example is the feast described by Xenophon (*Symposium* i, ii), where a variety of entertainment including dancing and acrobatics is provided by itinerant players.

¹² Petronius, *Satyricon*, 36, 53, 69. The translations are those of M. Heseltine in the Loeb Classical Library.

¹³ Emmanuel, *The Antique Greek Dance*, pp. 183 ff.

¹⁴ Reinach, *Antiquités du Bosphore cimmérien*, pl. LXXa.

¹⁵ Emmanuel, *op. cit.*, figs. 477, 478. *Mon Ined.* i, 1833, pl. 50. *FR.* ii, p. 100; pl. 78, 3. F. Weege, *Der Tanz*, pp. 97 ff., identifies this dance with the *δκλασμα* mentioned by Aristophanes (*Fr.* 344b, Oxford text, Hall and Geldart ed.). Emmanuel is surely mistaken, however, when he calls the Dionysos of the vase a Persian king.

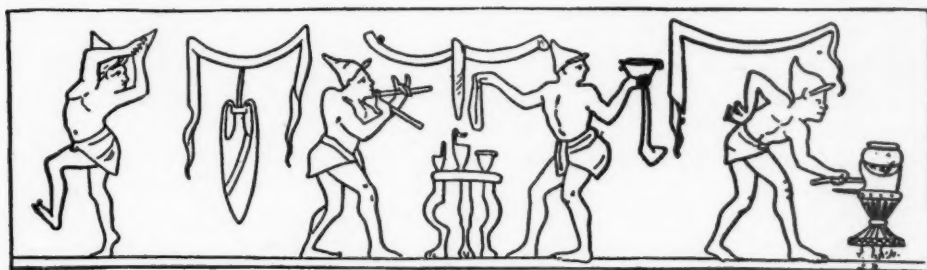


FIG. 7. — BRONZE VASE IN SAINT-GERMAIN-EN-LAYE

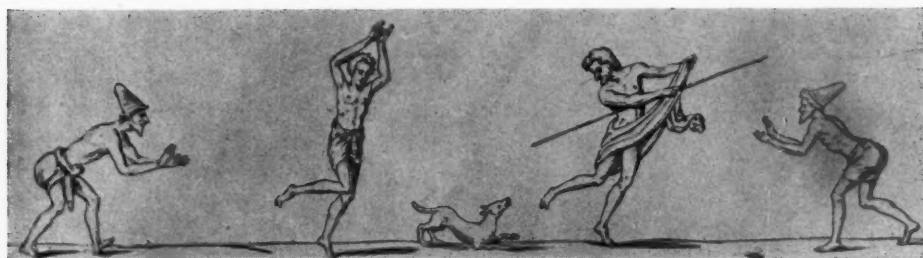


FIG. 8. — WALL PAINTING FROM COLUMBARIUM OF THE VILLA DORIA PAMFILI

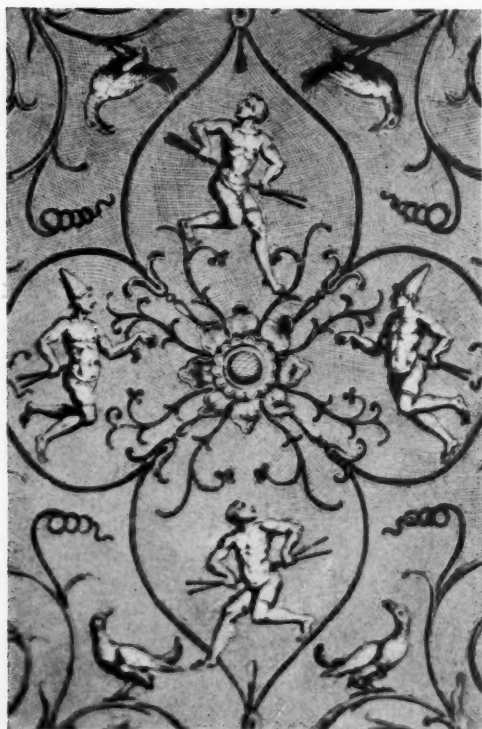


FIG. 9. — CORSINA MOSAIC



FIG. 10. — WALL PAINTING FROM COLUMBARIUM OF THE VILLA DORIA PAMFILI



FIG. 11. — GEM

illustrates the quieter mood and is a close parallel to Emmanuel, figure 460,¹⁶ but taken in profile instead of full face. It is a relief, flat behind, showing the dancer to left with arms slightly raised and extended before the face with overlapping hands. He is bearded and the hair is worn long, with a thickened roll framing the face. It is somewhat difficult to determine the costume which is rather carelessly represented. As a rule the dancers wear the oriental sleeved garment, but the bare under-arm suggests a sleeveless chiton in this case. The terracotta has suffered from the action of water which has worn down and blurred the surface, but the extreme delicacy of the profile can still be discerned. This dancer has the intense concentration, the look of inner withdrawal, characteristic of the religious performer. While the dance retained its steps and attitudes, it must obviously have lost its high seriousness when adapted to the secular and often obscene purposes of the mime. The contrast is, I think, admirably brought out in these two figurines from Tarsus. The small relief formed almost certainly one of a decorative group of similar figures attached to a wooden background such as have been found in southern Russia.¹⁷ It is less certain, but still probable, that the larger figurine was one of a pair for, as we see on the bronze vase and shall see in further examples, these entertainers perform in twos or multiples of two. We know of one set of possible companion pieces from Tarsus, male and female winged figures. One was excavated many years ago by Langlois¹⁸ and is now in the Louvre, and the other came from our excavations and was found in the same deposit as our mime. It seems probable, therefore, that the figure of the mime had originally a companion in similar attitude facing to the right.

Dieterich, in his charming book, *Pulcinella*, inspired as he tells us by afterthoughts of a Roman carnival, draws attention to the murals in the Columbarium of the Villa Pamfili on the Janiculum.¹⁹ Here there are scenes of tragedy, possibly from those actually performed at the funeral rites of the interred, with interludes of low entertainment consisting, in part, of dancing. A large number of the murals were first published with a commentary by Otto Jahn,²⁰ but there are so many errors in the drawing in the single case where it can be checked against a modern photograph²¹ that the drawings cannot be used for the study of details. The general character of the dancing scene²² is, however, evident, and the description by Jahn may be trusted (fig. 8). A youth and an older man with a grotesque countenance, wearing only loin-cloths, are dancing in the center. The older man holds a long stave and has loosened his single garment. He appears to be disturbed by the yapping of a small dog, while the youth is absorbed in his performance. They are flanked by men who are encouraging the dancing by rhythmic clapping and may at any moment join the performers. The one wears a loin-cloth identical in arrangement with our terracotta; the other,

¹⁶ Winter, *Typen der figürlichen Terrakotten* i, p. 171, fig. 3, from Pompeii, several examples cited. For a similar female dancer, cf. Pottier, *Myrina*, no. 280, p. 418, pl. XXXIV-1.

¹⁷ Minns, *Scythians and Greeks*, pp. 370 ff. for terracotta reliefs as coffin ornaments. Among the more notable examples are a group of Niobids, figs. 269-270. Minns also refers to similar figures from Gnathia in Apulia.

¹⁸ Louvre, no. 374; Winter, *op. cit.* ii, p. 372, 10; *GBA.* xiv, 1876, p. 401; *BCH.* xxi, 1897, p. 528.

¹⁹ *Pulcinella*, pp. 167 ff.

²⁰ "Die Wandgemälde des Columbariums in der Villa Pamfili," *ABayer.A.* 8, 1857, pp. 231 ff. The illustrations are not complete. Those of an obscene nature were suppressed.

²¹ *Ibid.*, pl. IV, 10, and Bieber, *The History of the Greek and Roman Theater*, p. 318, fig. 422.

²² Jahn, *op. cit.*, pl. IV, 12. A single figure, Dieterich, *op. cit.*, p. 143.

if the drawing may be trusted, a pair of trunks, and both have the pointed hat. I do not believe there is any essential difference in function between the four figures. In this type of entertainment all had to take their turn and the dancers may have discarded the characteristic hat for practical purposes so as not to lose it in the violence of the action. This is, however, not necessarily so, for in the Corsina mosaic two of the dancers are bareheaded and two wear hats (fig. 9). These ugly bearded rogues with their attenuated bodies are indeed very close in appearance to the Tarsus mime, except for the fact that they seem occasionally to wear trunks instead of the loin-cloth.²³ The costume for this dance is not always the same, for on another painting in the Columbarium²⁴ it is being performed by youths in short chitons to the accompaniment of the music of the flute and κρουπέζιον. Here the atmosphere is clearly one of orgiastic excitement and may well represent the type of unbridled and lascivious religious dance associated with Anatolian cults which formed the basis and inspiration for the performances of low-class secular entertainers. We know, indeed, from literature that the worshippers and performers in the processions of Cybele were execrated by moralists for their debasing influence, and were often the same people who provided the secular entertainments. Especially was this true of Rome, where profligate ladies of wealth, developing a trend of the Hellenistic world, liked to collect eunuchs and all kinds of physical monstrosities for purposes of diversion.

Another excerpt from the Columbarium paintings (fig. 10) shows paired dancers of our now familiar type,²⁵ accompanied by a third figure, possibly female, who is either joining in the dance or urging them on. I incline to the latter view, as she would then correspond to the figure behind and to the left of the right-hand dancer (Jahn, pl. II, 5). The foremost dancer holds two sticks in the right hand and the same may be true of his companion; it is not possible to tell, as the right side of his body is covered. These paired sticks appear frequently in both hands of dancing figures²⁶ and seem to be carried in two ways: at one end, as here, or at the center and more or less obviously crossed, as in the dancing scene on a boat (fig. 11),²⁷ where two nude dancers wearing the pointed cap are mounted on a platform. The crossed staves are also held by the nude clown on a lamp,²⁸ by the dancers of the Corsina mosaic (fig. 9),²⁹ and by figures on a terracotta Campanian relief.³⁰ Jahn³¹ held that

²³ Wilson, *The Clothing of the Ancient Romans*, subligaculum, pp. 72-73. In the drawings the dancers are not phallic, but this may be due to the draughtsmen. Unfortunately, this is not a moment to obtain photographs from Italy.

²⁴ Jahn, *op. cit.*, pl. II, 5. This is the costume of similar dancers on Arretine pottery. Cf. Chase *Catalogue of Arretine Pottery*, Museum of Fine Arts, Boston, nos. 68, pl. XVI, 69, pl. XVII. On the latter a draped woman claps for the dance.

²⁵ Dieterich, *op. cit.*, p. 181. This illustration is taken from a photograph and is clearly an excerpt from a larger scene. It does not occur among the drawings accompanying the article of Jahn, and I have found no other mention or reproduction of it.

²⁶ Jahn collected most of the early examples to which I refer. To these must be added similar objects in the hands of dwarfs on Antioch mosaics discussed by Doro Levi (see footnote 7).

²⁷ Ficoroni, *Gemmae*, pl. III, 8.

²⁸ Bartoli, *Le antiche Lucerne* i, pl. 34.

²⁹ *Ibid.* i, pl. 35.

³⁰ Rohden-Winnefeld, *Architektonische römische Tonreliefs der Kaiserzeit*, pl. CXII.

³¹ *Op. cit.*, p. 266: "Die Stäbchen mögen zum Theil gedient haben um bei den Stellungen der Tänzer zu figuriren, hauptsächlich aber wurden sie benutzt um durch ihr Zusammenschlagen und Klappern den Tact bestimmt zu markiren." Their use to accompany orgiastic dancing is especially well illus-

they were used chiefly to mark the rhythm, like castanets, but also for emphasizing the poses in the dance. This would correspond to the twofold use of staves by Morris dancers and seems to me the correct explanation. There is a type of instrument which, while serving the same purpose, is different in construction. It consists of a stick with loose clappers at both ends and is best illustrated by *Antioch* iii, pl. 56, no. 120A, where it can be seen in the hands of a hunchback dwarf. Doro Levi, who discusses these sticks only as they occur on the Antioch mosaics³² believes that they were used as a talisman against the Evil Eye. I see no objection in principle to their having served this secondary purpose, but in that case, it would be difficult to explain why the dwarf of *Antioch* iii, pl. 56, no. 121, turns his back upon the eye and holds the sticks in front of him and so away from the object they are to daunt, while the phallus turns back towards the eye so as to exercise its talismanic power.

Many of the dwarfs and hunchbacks use the sticks in the dance and that must at all times have been their chief use. I do not understand why they should be found in the hands of a fisherman on another Antioch mosaic³³ unless he, too, is a mime and accompanied with dancing his dramatic imitation of the fisherman's life.³⁴

The search for scenes which may help in the interpretation of our terracotta takes us next to a building in Rome, one of the most important and most puzzling discoveries of the last quarter of a century: the Underground Basilica of Porta Maggiore.³⁵ The stucco frescoes of this building were interpreted by Cumont as referring to the Neo-Pythagorean cults. Cumont points out that this was not a philosophic school like that of the Epicureans, but a church with a cult which was secret. At the end of the Republican period Pythagoreanism, the seat of which was at Alexandria, was introduced at Rome by one Nigidius Figulus, a senator. The cult met opposition and under Augustus a Pythagorean, Anaxilaos of Larissa, was expelled from Italy on a charge of magic. Cumont believes that the Basilica was erected on the private ground of one of the family of the Statilii for the reunion of members of a sect of which he was one of the chief adepts. According to Tacitus, the young Statilius Taurus committed suicide in 53 A.D. rather than face the senate on a charge of having practised magic. Mrs. Strong believes that the Basilica can be safely dated to the first half of the first century A.D. and points out that it was the emperor Claudius who recognized the cult of Attis represented among the stuccoes, formerly forbidden

trated on a relief found in Italy (*NS.* 16, 1919, p. 106). Here one performer holds cross sticks in one hand, another the single stick in each hand.

³² *Antioch* iii, pl. 56, 120-121, p. 227. Interesting parallels to the dancing dwarf, Graindor, *Terre cuites de l'Égypte gréco-romaine*, p. 139, no. 58, pl. XXI.

³³ *Antioch* ii, pl. 53 (72, Panel B), referred to in the article of D. Levi (see note 7).

³⁴ Scenes of the water-front and shipwreck were popular subjects for mimes; Petronius, *Satyrikon*, 114-115.

³⁵ A great deal has been written about the Basilica. I give some of the more important publications: Cumont, *RA.* (5th series), viii, 1918, part 2, pp. 52 ff.; Bagnani, *JRS.* ix, 1919, pp. 78 ff.; Bendinelli, *BullComm.* l, 1922, pp. 85 ff.; *MonAnt.* xxxi, 1926, pp. 603 ff.; Strong, *JHS.* xlv, 1924, pp. 65 ff.; Strong, *Art in Ancient Rome*, pp. 167 ff.; Wadsworth, *MAAR.* iv, 1924, pp. 9 ff.; Kerenyi, *ARW.* xxiv, 1926, pp. 61 ff.; Carcopino, *La Basilique Pythagorienne*, pp. 61 ff.; Hubaux, *Le Musée Belge* xxvii, 1923, pp. 1-81. Also, Strong, *JHS.* xlv, 1924, p. 66, f. n. 2. (The reference here to the article of von Duhn is wrong; it should read: *AA.* xxxvi, 1921, pp. 102-107.)

but secretly practiced, and established the office of Archigallus. Miss Wadsworth, however, who examined the frescoes from the technical point of view, would not date them before the end of the first century and possibly even later.³⁶ This dating was vigorously opposed by Bendinelli in favor of one not later than the time of Tiberius. She champions a purely secular interpretation of the frescoes and rejects both the Neo-Pythagorean and the funerary interpretation proposed by Bendinelli. "In considering the reliefs collectively, they seem to have more decorative and illustrative value than allegorical. Similar motives are found on all sorts of objects which have no funerary or religious meaning."³⁷ It has seemed necessary to give the two opposing views. The majority, however, incline to the earlier date and religious interpretation in which the hopes of the initiate, symbolically represented, are contrasted with the purely mortal features of terrestrial life. Among the latter appears the fresco which is of immediate interest here (fig. 12). In the center a woman makes passes of a mysterious nature at a three-legged table on which repose several objects, among them a cup on which rests a stick with terminal knob. On the bronze vase of the Saint-Germain-en-Laye Museum the same type of table occupies the center of the scene at which a single performer appears to be juggling.³⁸ It is obvious that we have before us some act of abracadabra which cannot be more closely interpreted and that a miracle of prestidigitation is in progress. That it is connected specifically with the wine cup becomes clear from the fact that the stick rests upon it; for this is no other than the sorcerer's wand such as is held, for example, by Circe (fig. 13) on a Boeotian vase said to come from Alexandria.³⁹ On a Kabeiric vase in Oxford she plunges the wand into the drink she proffers Odysseus.^{39a} The marvellous character of the performance is reflected in the amazement and concentrated attention of the two flanking figures. These lean fellows wear the loin-cloth and the pointed hat and bear the same relation to the central action as the similarly garbed men of the Columbarium did to the dancing figures, that of minor participants; the man to the right, like the right-hand dancer, carries a stave and the left-hand figure corresponds to the left-hand dancer of the Columbarium, in that he is youthful and more comely.

The objects reclining against the post between the first and second figures from the left are, I have no doubt, although they have not previously been recognized as such, the rods or clappers discussed in connection with the frescoes of the Columbarium.

If this scene, the exact meaning of which eludes our powers of interpretation, may in a general way be held to represent, in contradistinction to the immortal hopes of the initiate, the lower pleasure of this mortal life,⁴⁰ the transition can the

³⁶ Lanciani placed the basilica in Hadrianic times (quoted by von Duhn, *l.c.*, p. 106).

³⁷ Wadsworth, *op. cit.*, pp. 86-87.

³⁸ Dieterich believes the scene represented Dionysiac revellers (*op. cit.*, pp. 159-160).

³⁹ *AM.* lv, 1930, pl. XIV.

^{39a} Gardner, *Catalogue of Vases, Ashmolean Museum*, pl. XXVI.

⁴⁰ This statement, I am aware, represents something of oversimplification of the views expressed. Mrs. Strong, for example, believes that even the conjuring scene may be brought into the framework of initiation. "It may be supposed to stand for the $\mu\alpha\gamma\epsilon\lambda\alpha\iota$, magical incantations which according to Plutarch, *De Superst.* xii, formed part of the rites of initiation (*JHS.* xlv, 1924, p. 85). Cumont, however, whom I follow, says (*op. cit.*, p. 55): "Quelques tableaux, comme des jongleurs faisant leurs



FIG. 12.—STUCCO RELIEF FROM THE UNDERGROUND BASILICA OF PORTA MAGGIORE, ROME



FIG. 13.—BOEOTIAN VASE



FIG. 14.—LEAD-GLAZED CUP IN BERLIN



FIG. 15.—ROMAN RED-GLAZED JUG
FROM THE ATHENIAN AGORA

more easily be made to a group of monuments which have long been recognized as caricaturing the type of popular entertainer under discussion. The most important, a glazed cup with figures in relief (fig. 14), found in Macedonia and now in the Berlin Museum, was published by Zahn in a masterly monograph⁴¹ in which are discussed other examples of the same character. Since then the Agora excavations have added an extremely important red-glazed jug (fig. 15).⁴² Here the maker of these relief vases plays the same rôle as the modern cartoonist. He creates a type, based upon the world of mimetic entertainment, but translates it into the world of phantasy. Thus he gives to his satire a force far more powerful than realism. It is not a skeleton, the memento mori of the feast, for that symbol of transience hangs in the center of the scene. It is the "Man of Death," the man vowed to extinction, who performs the dance which symbolizes all the carnal and unsubstantial pleasures of mortality. That the dancers caricatured on the Berlin vase are specifically the type of our terracotta is shown not only by their phallic character and pointed cap, and the small fluttering garment, which may well be the loin-cloth loosened and laid about the shoulders, but by the eyes. Although Zahn did not comment upon this feature, it is quite evident that at least one of them has one circular eye and one elongated and closer to the normal, producing the desired comic effect of asymmetry. The wreath, the Phrygian flute, the wine jar again suggest not only the feast, but the Dionysiac background and in view of this I should like to propose that the hind-quarter of a kid to the left of the skeleton symbolizes the animal torn to pieces by the frenzied followers of Dionysus rather than merely the roast meat of the feast;⁴³ this is not incompatible with the idea of Zahn, who was certainly right when he felt the spirit of the scene to be that of "carpe diem." "Enjoy your possessions," is the exhortation of the inscription. "For you know that death awaits you," adds the dangling skeleton. The artist of the Berlin vase has brought out the orgiastic abandon of the dance with rare skill and this is indeed the masterpiece of the group which includes among the more important examples a lead-glazed jug from Olbia,⁴⁴ now on exhibition in the Metropolitan Museum, with a Dionysiac mask at the base of the handle and three dancing figures of similar type, and the jug of red ware found in the Athenian Agora (fig. 15).⁴⁴ The latter also shows three performers of whom two have the characteristic beak nose of the buffoon, and the third (fig. 15) seems to be juggling a ball by allowing it to pass over his body in the manner of a terracotta figurine now in Berlin (fig. 6).⁴⁵ Among minor pieces there is the fragment of

tours, un pédagogue avec ses élèves, ou des athlètes se livrant à leurs exercices, semblent purement profanes, bien qu'une intention morale les ait probablement fait reproduire ici, la vie étant comparée souvent à un théâtre, à une école, à une palestra."

⁴¹ Robert Zahn, ΚΤΩ ΧΡΩ, 81st *Winckelmannsprogramm*, Berlin.

⁴² Shear, *Hesperia* vii, 1938, p. 347, fig. 31, where he notes the resemblance to the Berlin cup. Our fig. 15 is reproduced with the kind permission of Dr. Shear.

⁴³ Zahn, *op. cit.*, p. 6: "Die zum Braten fertige Keule eines Lammes oder Böckchens."

⁴⁴ Minns, *Scythians and Greeks*, p. 355: "On the body of the jug are three skeletons (sic) wearing conical hats; the middle one has also a necklace; they seem to be dancing some obscene dance; between them are ravens: the whole is covered with a brownish green glaze." Minns mentions several similar fragmentary pieces from southern Russia, *B.M.A.* xi, 1916, p. 66. The vase belongs to the Morgan collection.

⁴⁵ Bieber, *The History of the Greek and Roman Theatre*, p. 424, fig. 562; Winter, *Typen* ii, p. 160. Among

red-glazed ware found at Troy⁴⁶ which looks like an excerpt from the Berlin vase, for we have the skeleton, this time wearing the pointed cap and swaying drunkenly, surrounded by the Phrygian pipes, amphora, pitcher and other insignia of the feast. Practically the same paraphernalia appear on a pitcher from Miletropolis in Mysia,⁴⁷ but without either skeleton or dancers. Quite possibly Lucian had in mind mimes of the type represented by our terracotta and caricatured on these vases when he speaks of the ideal proportions of the dancer as "neither very tall and inordinately lanky, nor short and dwarfish in build, but exactly the right measure, without being either fat, which would be fatal to any illusion, or excessively thin, for that would suggest skeletons and corpses."⁴⁸ In general, these vases of early Roman manufacture appear to be the successors both in time and in character of the lagynos,⁴⁹ popular in Hellenistic times, on which, too, are painted the insignia of the feast, though no human figures appear upon them.⁴⁹

Nothing has been said as yet about the date of our figurine. It was found in a fill of broken terracottas and pottery which proved to be of surprising consistency. Except for a few sherds of earlier date, the material was for the most part Augustan with some pieces as late as the middle of the first century A.D. The full evidence will appear in the final publication of the site and rests upon coins, lamps and terra sigillata with foot and other stamps. The monuments I have related to the figurine fall, in general, within this period, though here the range given may be somewhat wider. The shape of the bronze vase of Saint-Germain-en-Laye hardly allows of a date later than the one indicated for the terracotta. The frescoes of the Villa Panfili belong to the early Augustan age according to Huelsen,⁵⁰ who studied the inscriptions, a date with which Dr. Bieber agrees.⁵¹ She was able to study the original of the tragic scene in the Museo delle Terme, whither the Columbarium had been transferred in 1932. The stuccoes of the Porta Maggiore Basilica are generally placed in the first half of the first century A.D., although, as has been mentioned in the previous discussion, one authority would bring down the date at least as late as 100 A.D.⁵² Zahn places the Berlin vase with the skeleton-like dancers in the time of Augustus; at all events, he says, it cannot be later than the reign of Tiberius.⁵³ It is

terracotta heads no longer joined to their bodies compare for the huge beaked nose, Froehner, *Terres cuites d'Asie de la Collection Gréau* ii, pl. 43.

⁴⁶ Dörpfeld, *Troja und Ilion*, p. 445, fig. 256.

⁴⁷ Zahn, *op. cit.*, p. 12, fig. 3.

⁴⁸ Lucian, *De Salt.* 75. The translation is that of Harmon, Loeb Classical Library.

⁴⁹ Leroux, *Lagynos*, pp. 101 ff. The first datable lagynos belongs to the second half of the third century and they continue in use for about two centuries. This argument is advanced in some detail with supporting evidence. Homer Thompson, "Two Centuries of Hellenistic Pottery," *Hesperia* iii, 1934, pp. 450-451: "Our groups . . . suggest that in Athens the lagynoi were coming into use in the early second century and were popular in the second half of that century."

⁵⁰ The skeleton at the feast, frequently with mobile limbs, is known to us both from literature and archaeological remains: Petronius, *Sat.* 34, silver skeleton; *Mon Piot* v, 1889, pp. 64 ff., pls. VII-VIII, Boscoreale cups; gems, Lippold, *Gemmen und Kameen*, pl. lxvi, 9-14; bronze skeleton, *AA.* iv, 1889, p. 106; silver, Reinach, *Rép. Stat.* ii², p. 691, 2; *DS.* s.v. *Larvae*.

⁵¹ Huelsen, *RM.* viii, 1893, pp. 145 ff.

⁵² Bieber, *The History of the Greek and Roman Theater*, p. 319, note 8.

⁵³ Miss Wadsworth (*op. cit.*, p. 87), who, it will be remembered, subscribed to what Mrs. Strong calls "the deadening doctrine of the 'purely decorative'." (*JHS.* xlv, 1924, p. 110).

⁵⁴ Zahn, *op. cit.*, p. 14.

worth noting that the cup standing on the table of the conjuring scene of the Basilica is of the same shape as the Berlin vase and the jug to right of the table bears a general resemblance to the Agora one. The vase from Olbia is also assigned by Zahn to the Augustan period^{53a} and the Agora vase "came from a well on the Kolonos with contents dating from the first century B.C. to first century A.D." The fantastic dancers, hybrids of the living and the skeletal form, represent a passing fashion. So far as I know, they do not reappear after the first century A.D. and are indeed more or less contemporary with the great vogue of the true skeleton in Roman art.⁵⁴ It seems most likely, then, that, as Furtwängler says, the popular form of Epicureanism so prevalent in Rome of the first century inspired these representations in which death figures as the destroyer of all mundane pleasure and preaches the same sermon as the poet Horace. But artists, too, by the imagination and skill with which they fix an abstract idea in visual form, can do much to foster its vogue. The "skeletal-man" of the vases was undoubtedly the creation of a single gifted artist and the lead-glazed cups and pitcher on which the figures were not moulded but made by a freehand technique,⁵⁵ must be considered the product of a single atelier, the location of which is unknown. Zahn believes in an Asia Minor origin, although he sees more Alexandrian-Egyptian elements in the Berlin vase than seem probable to me. There is little evidence that Alexandria could claim more at this time than a share, proportionate to her wealth and importance, in the artistic inheritance of the Hellenistic world of the east Mediterranean. That she had a determining and directive influence still awaits proof. Tarsus now may put forth a valid claim to have been one center of the lead-glazed pottery industry. Pottery, sometimes fairly complete, sometimes in fragments, was found in every stage of production: the moulded vase; the moulded vase after it had been painted but not yet glazed, and the completed object. In addition, a fragment of a mould was found and plates with stilts on which the pot had rested during the final glazing process, covered with drippings of glaze. The industry, however, was certainly carried on at a number of centers and so it is not possible to ascribe the special group of "skeletal" vases to a Tarsus atelier.

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^{53a} Zahn, *Sammlung Bachstitz*, p. 32.

⁵⁴ The Boscoreale cup is usually dated to the reign either of Augustus or Tiberius. Furtwängler, *Die Antiken Gemmen* iii, p. 297, says in speaking of the first century A.D.: "Mit dem Gedanken an den Tod hat man sich in dieser Epoche viel beschäftigt. Totenschädel und Skelette sind gerade auf den Gemmen dieser Zeit eine charakteristische Erscheinung."

⁵⁵ This is described with much interesting detail by Zahn, 81st *Winckelmannsprogramm*, Berlin, p. 6 f.

HITTITE MILITARY ROADS IN ASIA MINOR

A STUDY IN IMPERIAL STRATEGY WITH A MAP (PLATE XVII)

THE map which accompanies this article is based largely on a selection of Hittite texts translated and co-ordinated by Dr. O. R. Gurney, with whom I had planned a joint work on Hittite Geography. The outbreak of the war, however, interrupted Dr. Gurney's revision and further researches, and his subsequent absence on military service in Africa has prevented us from considering together the results of my endeavors. The map should, therefore, be regarded as provisional and incomplete. It does, however, indicate some of the strategic roads discussed in this article, and so imparts to the episodes described a sense of reality and scale without which we cannot appreciate their full significance. In general, also, within the limitations mentioned, it represents my personal view of the Hittite world about 1300 B.C., and it is published now in the hope that, pending completion of the joint work, criticism may disclose its failings.

Preliminary Notes:

On the map, to save space, many names have been shortened, as by omission of duplicated consonants, etc. Thus Tumana for Tummana, the form used in the text. Exceptionally, also, Tuwana (the hieroglyphic form) instead of the textual Tuwanuwa. To facilitate tracing the roads, initial letters have been added to indicate the positions of some Hittite stations, as explained in the footnotes.

In the text, diacritical marks are omitted in the spelling of Hittite names. Most readers are aware that the Hittite S was pronounced Sh and is usually represented by Š; also that the H was hard, almost Kh, and usually shown as Ḫ. Since this applies to all occurrences of these letters in Hittite names, it seems unnecessary to use the marks in a non-technical article of this kind, while there are considerable compensations in clarity and economy.

In the footnotes, from which most familiar references are excluded, standard abbreviations are used to represent current publications. Texts which have been translated and edited by Dr. Goetze are regarded as standard, and are referred to when necessary simply by the page number: they include the *Annals* of Mursil (abbreviated as G.MAns), the *Memoirs* of Hattusil (G.Hat.), and the adventures of Maduwattas (G.Mad). Other abbreviations are: G.Kiz. for Goetze, *Kizzuwatna*; G.HE. for Garstang, *Hittite Empire*, and R.HG. for Ramsay's *Historical Geography of Asia Minor*, an inexhaustible fountain of topographical information.

I. INTRODUCTORY: RIVALS OF THE HITTITES

At the beginning of the fourteenth century B.C., when the fortunes of the Hittites began to revive under the genius of Subbiliuma, and their archives begin to be descriptive, we find Hittite domination challenged by three separate powers, each established in a corner of the Anatolian peninsula with access to the sea. In the

Southwest, among the lakes and mountains of Pisidia, we locate Arzawa, with its capital city on the Lycian coast. In the Southeast, where Taurus and Anti-Taurus provided Cataonia with its majestic ramparts, scholars now agree that we must place Kizzuwadna,¹ which controlled the Cilician coasts and the port of Tarsus. In the Northeast, though here on less familiar ground, we must seek the territory of the united kingdom of Azzi and Hayasa, which barred the way to Hittite expansion on that side. The Northwest was largely *terra incognita* to the Hittite kings and so does not come within our purview.

The challenge was evidently of long standing, and, like the stout resistance to absorption which ensued, it was fostered by the physical peculiarities of the areas in question. In general, the plateau of Asia Minor, at three to four thousand feet above sea-level is bound together as it were by a rim of high mountains which form an almost continuous chain and, on the north and south, descend in places abruptly to the sea. This feature has throughout history naturally tended to emphasize racial and cultural differences between the coastal plains and the interior. Obviously, also, though perhaps insensibly, it would breed in favorable retired spots a spirit of independence which under the stimulus of racial feeling or maritime relations might flare up into actual opposition to the ruling power. Illustrations stand out in high relief at certain epochs, notably the stout resistance to Roman authority offered by the Cilician pirates and by the native kings of Pontus. The "corners" of the plateau already mentioned mark such retreats, where the coastal mountains bend or break and merge with others in a way which offered to the local people exceptional opportunities to defend themselves against aggression by land or sea. By contrast, the open estuaries of the western coast seemed almost to invite invasion, and the Achaeans (textually, the people of Ahhiyawa²) took full advantage of these openings. In this connection, it can hardly be without significance that the Hittites, who were essentially an inland and alpine folk, developed and maintained a highroad from their capital to the western coast. Its course is well defined by their monuments, some of which are military in character;³ and it clearly passed outside their normal domestic boundaries.

The Hittite homelands lay, as all know, beside the Halys river (the Hittite Marassantia)⁴ and the position of two well known Hittite cities illustrates this statement. These are: the capital itself, Hattusas, which stood above the village of Boghaz-Köi, high up on the watershed between the Halys and the Iris, or more precisely on the divide between their respective tributaries, the Cappadox and the Scylax; and Kanesh, an old trading center on the south side of the Halys, some ten miles from the river. It is thus clear that the Marassantia was not regarded as a boundary—

Originally, to judge from its linguistic affinities, a Hurrian state (on which see G.Kiz., pp. 36 ff.), with a population, or at least a military element of Mongoloid appearance, to judge by the Egyptian representations, usually significant (Cf. G.HE., pl. IIIa).

² In view of the associations and contacts of the Lukka-landers, identified with the Egyptian Ruku later in this article (Section II), the identity of the Ahhiyawans of the Hittite texts with the Ekweh of the Egyptian records and with the Achaeans of Homeric legend seems to be established.

³ Cf. R.HG., pp. 30 ff.; also, for illustrations, G.HE., pls. XIIIa, XXXVI and fig. 12.

⁴ The regal status of Subbiluliuma "beside the Marassantia" is confirmed in the preamble to his treaty with Mattiuaza, the Mitannian prince: Weid., *Pol.Dok.*, p. 41.

HITTITE A



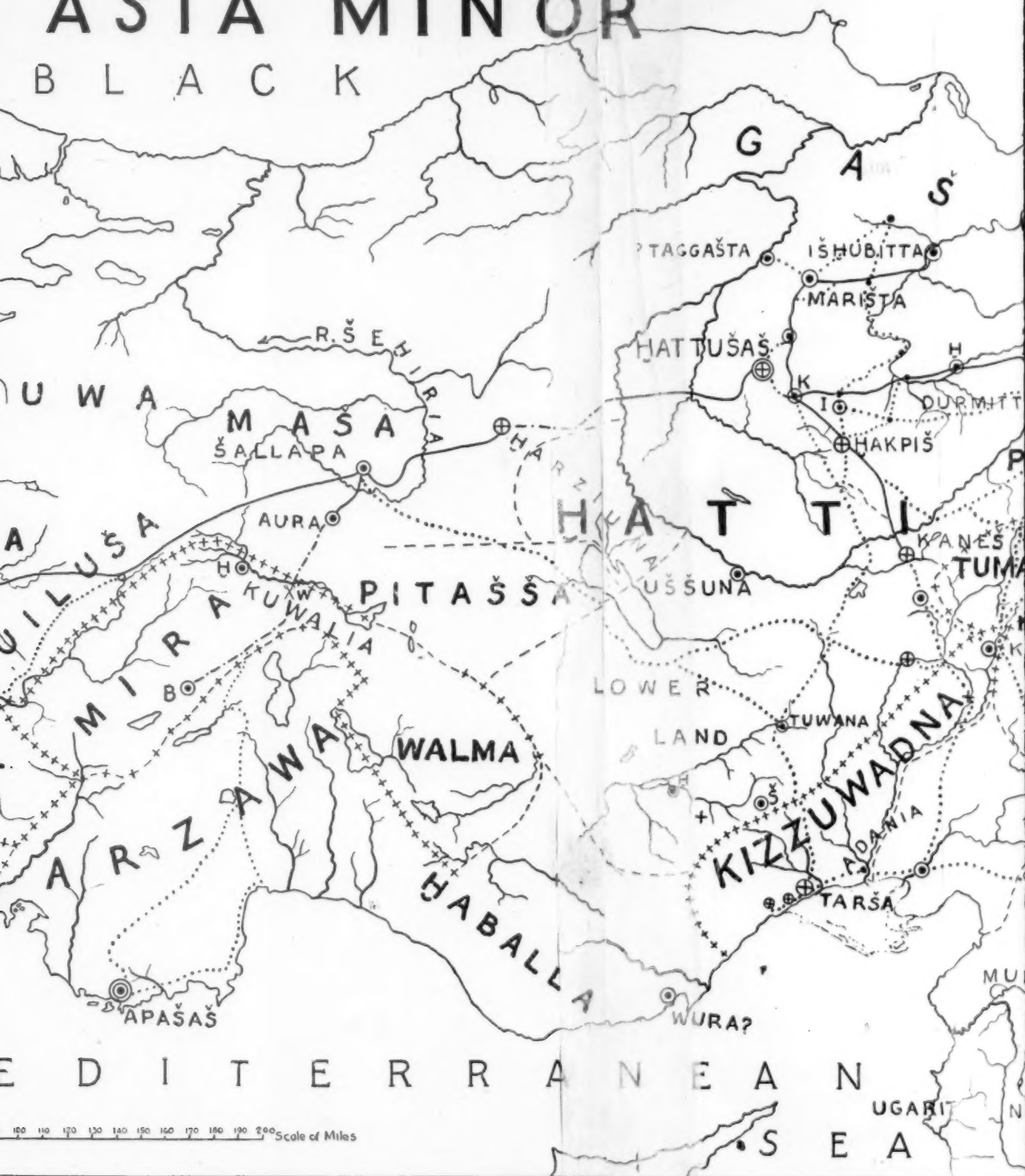
W.W.M.

A = Atriya
I = Ialanda
W = Waliwanda

PLA

ASIA MINOR

BLACK



H = Hapanuwa.
B = Buranda. W = Walmaa

K = Katapa. H = Hat
I = Ištabara.
Š = Šalia

PLATE XVII. PROVISIONAL MAP OF HITTITE ASIA MINOR (BASED LARGELY ON DOCUMENTS TRANSLATED AND COORDINATED BY DR. O.



H =
BY DE



H = Hattena

BY DR. O. R. GURNEY).



that would indeed have been inconsistent with the Hittites' practice—but that its whole basin was claimed as their domain. It is true that its upper reaches were contested by the people of Hayasa and others, and that its lower reaches passed through the coastal ranges into the lands of Gasga, home of their perpetual enemy of the North, but the disposition of the Hittite monuments bears ample witness to the Hittite occupation of the middle basin as a whole. It also suggests a sharp division between the zones of Gasga and of Hatti, in that no such monuments have been found in the basin of the Iris beyond the common watershed. The road which follows this divide thus marks a line of frontier, and it will be found in the course of our discussion to have formed the backbone of Hattusil's frontier command. The Hittite capital was not itself a natural road center, but it occupied a defensible position not far from the crossing point at Yuzgat of two ancient trade routes: one from the northern coast at Samsun towards Cilicia and Syria; the other from the upper Euphrates westward to the Aegean Sea along the road already mentioned.

Two other areas were claimed by the Hittites as their national heritage, namely the lowland region east of Konia, as far as the basin of the Kizilja Su with Tuwana,⁵ bounded on the south by the bend of Taurus; and also some part of the highland zone between the Halys and the Euphrates. For these areas also the textual implications are corroborated in a general way by the range of imperial monuments which fringe the central plain and the inner borders of the eastern Highlands.⁶ In the latter zone it would appear that effective occupation by the Hittites was limited to the western side of the watershed of the Euphrates, notwithstanding repeated efforts of successive kings to keep open their lines of communication centered on Sivas with old established sites such as Samuha and Battiarigga upon the Great River itself.⁷ The recognition of this natural frontier as an extension of Hattusil's command localizes the important districts of Pala and Tummana, formerly organized as a single zone by Subbiluliuma. These were backed by a strategic road which can be traced, and it was followed in part by Subbiluliuma on one of his distant campaigns towards the Southeast. We shall track him along this route, though not without encountering difficulties, as far as the borders of Kizzuwadna, where the strategic foresight of this great empire-builder is displayed at its best.

It will have been noticed that none of the three major zones of the Hittites' territory afforded them ready access to the sea. In this respect the advantage lay with their hereditary rivals, and it is not surprising to find traces, nebulous as yet, of attempts to overcome this disability. In each case, so far as we can see, military considerations seem to have supplied the motive, though doubtless maritime rela-

⁵ Tuwana is recognized by Profs. Gelb and Güterbock as the hieroglyphic form of Tuwanuwa, thus establishing the identity with Tyana. I use the shorter word as being more suggestive.

⁶ Imperial monuments in the eastern highlands range from KaraKuyu near Virenshehr to Fraktin on the lower Zamanti Su. Those found farther east, e.g. on the route via Azizia to Malatia, as well as nearly all those found at the latter site, seem to be post-imperial in date, perhaps as late as the eighth century B.C. This opinion is shared by Prof. Gelb, who has explored this road, which he found to be very difficult. See, further, his *Hittite Hieroglyph. Monuments*, esp. pp. 35-36.

⁷ The location of Samuha is discussed in a separate article by the writer, under the title "Samuha and Malatia," in a current number of the *JNES*. 1942. On Pala and Tumana, see below, sections iv and v.

tions would follow the acquirement of any seaport. Elementary strategy, one imagines, would suggest the importance of preventing any two of the greater rivals from uniting; or alternatively, if their territory were already contiguous, the necessity of driving a solid wedge between them. This applies with special force to the borderland between Kizzuwadna and Arzawa, which a sequence of the age of Telepinus (. . . Adania-Arzawia)⁸ suggests to have been narrow, if it does not indicate the actual contiguity of these two countries. Subbiluliuma's treaty with Sunasura, however, makes it clear that while the district of Adania was included within the domain of Kizzuwadna, as probably were Tarsus (Tarsa), Kazanli (Kikkipra), and Mersin (?Pitura),⁹ the territory on the outer or western side of the frontier from the sea at Lamia, upwards as far as Salia, was expressly reserved to the Hittite. If Lamia be correctly located at Lamos, the time-honored terminus of the Cilician frontier,¹⁰ the Hittites would thus reserve the Calycadnus valley, which gives relatively easy access to the plain of Konia (the Lower Land) by way of Karaman. Their contact would thus be assured with the Mediterranean by the little harbor of Myra, which may thus represent the port of Wura whither supplies were to be sent from Egypt in a time of famine.¹¹ Thus the frontier of Arzawa, represented in this case by its border state Haballa, would be held further west. The Hittites' contact with the Black Sea was restrained by the constant hostility of their northern foes, the Gassians; but if a report which reached Ankara a little while ago be confirmed, a two-meter deposit of Hittite pottery, said to have been found at Samsun, would seem to indicate a period during which the Hittites made use of that port.¹² Another case, still unconfirmed, suggests a military penetration. This is found in the *Annals* of Mursil's seventh year, when that vigorous leader overran the land of Tibya, and in so doing apparently reached the sea at Ordu. By this stroke he drove his wedge between the rival kingdom of Azzi and his other adversaries along that coast, while securing a strategic advantage for his further operations (as described in Sect. III).

As for the "royal road" to the West, we have no present means of determining its

⁸ G.Kizz. p. 57. In a recent review of this admirable book (in *JNES*, 1942), I suggested that as soundings in the city of Adana had failed to disclose any trace of Hittite origin, possibly the site had been moved since Hittite times from some more suitable position in the neighboring hills. Miss Hetty Goldman writes in a personal letter to tell of the discovery, during her exploration of the region, of a very likely mound of imposing appearance at the foot of the mountains, some 12 miles up the river from modern Adana.

⁹ The sequence is developed by Goetze, *Kizz.*, pp. 54-56, but the suggestion that the fortress of Mersin may represent the site of Pitura is mine. Pitura stood on the Kizzuwadnan side of the frontier opposite Lamia; and Sunassura was tacitly allowed by the terms of the treaty to keep its fortifications in a state of repair. Cf. Goetze, *op. cit.*, p. 51. The fortress, which followed the Hittite model, seems to have been repaired (at level VI A) about that time. Cf. *LAAA*. xxvi, p. 38; pls. XLV, LXXXIV.

¹⁰ The Lamos river is said by Strabo to have marked the boundary of Cilicia Tracheia. This, the simplest and most plausible interpretation of the boundary terminus, is adopted by Goetze, *op. cit.*, p. 58.

¹¹ Cf. Fo. *MDOG*. 63, p. 5. For the Egyptian parallels, cf. the Karnak Insc. of Merneptah, L 24; Meyer *Gesch.* i, p. 530; Bilabel, *Gesch.*, p. 118; for these references I am indebted to the kindness of Mr. Sidney Smith. Hittite access to a port on the southern coast associated with Haballa is suggested by a mutilated text translated by Forrer, *Klio* xxx, p. 165.

¹² The port of Sinope, not far to the west, and connected with Samsun by a coastal road, was one of the earliest to be mentioned in Greek tradition. Cf. R.HG., p. 28; Strabo xii, ii, 10; G.HE. 75.

main purpose or objective. Doubtless as a trade route it was very ancient, and presumably it made for the sea at the great harbor of Smyrna. It also sent a branch over Tmolus to the site of Ephesos. Its chief southern arm, however, led down the Maeander valley, and we shall see that it was used by Mursil in his efforts to prevent the political union of Arzawa with the incoming Achaeans, who had established a center of intrigue in the important coastal city of Milawatas (otherwise Milawandas). This place was visited by Mursil in person and the tracing of the stages on his journey, from the records, provides us with a most instructive problem.

From these glimpses of the broad strategic situation of Hatti in relation to contemporary societies upon the plateau, we turn now to examine some special cases from a nearer standpoint. It should be noted that, in so doing, it is not so much our purpose to demonstrate the geographical identifications suggested by the map, as to illustrate the interest and importance of working out a map which takes full account of the physical and topographical features and the permanent road systems of the country. We begin with Arzawa and the Southwest, because that zone stands apart, its problems are relatively free from complications, while the roads are few and well defined.

II. MURSIL'S PENETRATION OF ARZAWA

Early relations between Arzawa and Hatti are obscure, but it is known from various contexts referring to the "dark age" for Hatti before Subbiluliuma that Arzawa had at that time divided most of the Hittite homelands with the Gasga folk from the North.¹³ The latter seem, in fact, to have crossed the Halys and reached Nenassa, while the Arzawans advanced their frontier as far as Tuwana.¹⁴ Both adversaries were forced by Subbiluliuma to withdraw from these advanced positions, though not without stubborn resistance which made it necessary for him to retake the latter by assault.¹⁵ However, it would seem that the boundary of Arzawa was now pushed back to the western border of the Lower Land, where it is found in the age of Mursil. Records of this king¹⁶ tell of the dispatch of an expedition from the Lower Land against Haballa, the frontier province of Arzawa on that side. Greater Arzawa is disclosed in the *Annals* as comprising a central kingdom of that name, fronting the sea, and enclosed on the land side by a number of buffer states. Of these, Haballa, as we have seen, faced the Hittite Lower Land and so formed the eastern member of the combine; Mira and Kuwalia, bordered by the rivers Siyanti and Astarpa, lay over against Sallapa, whence Mursil launched his great campaign, while the Land of the River Seha, now, but not originally, a member of the confederacy, lay between the central province and the western sea.

Such was the organization that confronted Mursil, and in view of the strength of the enemy's position, the campaign recorded in the *Annals* of his third and fourth

¹³ Cf. Cavaignac, *Subbiluliuma et son temps*, 1932, p. 29 f.

¹⁴ Clearly shown in G.Kizz., p. 25, *ap.* K Bo. vi, 28. If Nenassa be the Nanassus of Ptolemy in Garsauritis, located at or near Nenizi (a situation supported by its context in KUB. vi, 45), and Tuwana or Tuwanawa be Tyana, there would, in fact, remain in Hittite hands within the area indicated only the strip of territory lying in the basin of the stream (Hylas Fl. on Kiepert's map) which flows into lake Tatta from the east.

¹⁵ Cavaignac, *op. cit.*, p. 38. This reading, Goetze tells me, is open to question.

¹⁶ KUB. xix, 22: a reference and translation culled from the MSS. of my collaborator, Dr. O. Gurney.

years must be recognized as a notable achievement. In this the young king, supported by two allies, invaded the territory of Arzawa, and after a decisive battle near the frontier, broke the enemy force into three groups which he proceeded to follow up and destroy one by one. The further story is illustrated by topographical allusions. One group of the fugitives took refuge on the almost impregnable hill stronghold of Buranda, where they defied him throughout the winter. A second sought safety in the rocky shelters of Mt. Arinnanda, which is described as very rugged and descending steeply into the sea. A third, including the crown prince who had commanded the routed army, fled to rejoin the king (who was ill) in his capital city Apasas. This also stood by the sea, and when Mursil in pursuit reached the spot, he found the fugitives had escaped with the ailing king to a nearby island.¹⁷ This attractive narrative offers a number of topographical suggestions. Its interest would be greatly enhanced if by their help we could visualize the scenes of these episodes and appreciate the distances involved—still more so, if we could identify some places and set them on the map. This, I now think, a combination of clues will enable us to do.

The effective starting point for this campaign was Sallapa. Here Mursil was joined by his brother from Carchemish, and the site has usually been sought somewhere in the vicinity of Konia, as being convenient for the meeting and leading in the general direction of Arzawa. But in neither of the records of operations from the Lower Land against the Arzawan frontier (known to be Haballa) is there any reference to Sallapa; nor indeed is a single name common to the two contexts. Obviously the settings were quite different. Moreover, it must be borne in mind that, owing to the lie of the land, there is no direct road westward into the territory of Arzawa proper from anywhere in the vicinity of Konia. The line of the modern railroad, which makes a long detour northward to gain the Maeander valley, shows this clearly, and the only alternative is the southern coast road. This being so, Mursil must have followed a more northerly route on his way to Milawatas on the western coast. In the light of these considerations, the criteria governing the location of Sallapa may be restated in simple terms as follows: Sallapa stood on Mursil's route from Hattusas towards the western coast. It marked a road junction, where the route from Carchemish came in, and from which Mursil led the combined force against the frontier of Arzawa by way of Aura. To avoid confusing the issues, let us consider these items separately, beginning with Mursil's route towards the West.

The readiest and practically the only road from Hattusas towards the West followed the ancient trade route already mentioned; and it can be traced, as seen above, from the imperial Hittite monuments found along its course. As the foundation of the later "royal road," it has been much studied and its track is well defined. After crossing the Halys, it passes below the Hittite hill-station and sacred sculptures of Giour Kalesi. Then, crossing the Sekeria (or Sakaria) river, it winds around the foot of a well known mountain ¹⁸ towards Sivri-Hissar, the modern road center

¹⁷ I follow throughout, and acknowledge my indebtedness to, the now standard translation and edition of Mursil's *Annals* by Dr. A. Goetze. This work is accessible to all students in *MVAeG* 38, 1933, vi, and for this reason detailed references are mostly omitted.

¹⁸ Mt. Dindymus.

of the whole region. At this point, represented on the classical maps by Pessinus, famous *hieron* and road center, we pause, recalling that the account of Mursil's march towards Arzawa mentions successively a river called in Hittite the Sehiria, (or Sehiriya) and the mountain of Lawasa, just before reaching Sallapa.¹⁹ The similarity of name and setting arrests attention. Can Sivri-Hissar, road center and site of an ancient shrine, on the normal route towards the West, represent the Hittite Sallapa? It certainly satisfies the conditions, and a glance at the map will show that the local roads also seem to suit the other contexts involving Sallapa. Furthermore, a version of the most ancient name of Sivri-Hissar, before the rise of Pessinus, was actually Spalia.²⁰ The equation seems to be complete and perfect, and accordingly I place Sallapa at this point on the route. Continuing on our course toward the West, through the pleasant glades and pine-clad hills of Phrygia, we cross the watershed between the Sangarius and Maeander, and approach the latter as we near the old site of Ceramon Agora.²¹ Here the road forks. Its northern branch, avoiding the headwaters of the Cayster, passed the still embryo site of Sardis, and so by way of Sipylus and KaraBel reached the coast at Phocaea and Ephesos. The other branch, which claims more attention, kept to the Maeander valley, and so found a natural terminus at Miletos, which in Hittite times, before the estuary became silted up, would stand almost upon the open sea.

Milawatas, the terminal objective of Mursil's march, also stood close to the sea, and, as it was a focus of Achaean intrigue and activity, the sea in this case was most probably the Aegean. Milawatas and Miletos thus seem to come quite readily together; and though we have learned to mistrust name resemblances in general, particularly in isolated cases, the identity of these two is supported by circumstantial evidence pointing independently to the same conclusion. For Mursil's line of approach to this place was marked by two other site names in the sequence: Waliwanda-Ialanda-Milawatas, and the sites suggested by the classical equivalents of these other names, namely Alabanda and Alinda, mark an actual route toward Miletos parallel with the Maeander.²² We cannot reject the significance of these pointers. Another detail of agreement is worth noting. The site of Miletos has been well excavated, and it shows abundant traces of Mycenaean relations which correspond well with the record of Achaean penetration in the fourteenth century B.C. Moreover, the survival of a group of Hittite names in their later Carian forms,

¹⁹ G.MAns., pp. 45 (l. 24); 47 (l. 15); 49 (l. 7).

²⁰ R.HG., p. 223. Variant forms are: Spanias, Spaleias, and Palias.

²¹ Opinions seem to have differed as to the precise location of this site. Kiepert placed it at Suzus Kōi, Ramsay at Hadji K, but the distance between these is insignificant. J. G. Anderson, whose map is most trustworthy, agrees with Kiepert. The road fork is indicated in our map by an open circle (below the S of ULLUSA).

²² These sites are indicated on our map by their initial letters, on the dotted road approaching Milawatas. The river can be crossed directly at Aidin, classical Tralles, marked on the map with A (for Atriya). The road from Alabanda to Alinda is described in that valuable and scholarly work, Murray's *Handbook to Asia Minor*, pp. 116-7. An alternative way to Miletos from Alinda, indeed the better road, passed by Mylasa, the most ancient residence of the princes of Caria. This may be the site of Hittite Abbawiya, which lay on a route between Ialanda and Milawatas: it was approached by a hill climb, a topographical detail in agreement with the description of the alternative route mentioned. Cf. Murray, *op. cit.*, p. 117. The text, from KUB xiv, 3, col. I, is translated by Sommer, in *Abh. Wck.*, pp. 3-5.

though quite exceptional, seems to be borne out by other cases. In the same context and association, for example, the name Hursanassa, which appears more than once, equates well with Chersonesos, the name applied by the Greeks to the Carian promontory south of Miletos. The resemblance in this case is more than superficial, for the stem of the Hittite word may mean "head," and so give to the name the meaning "headland," as in Greek usage. The identity in this case can therefore be accepted, and it provides a parallel which renders credible the equally transparent survival of the name Milawatas in the classical Miletos. In view of these indications, and in the absence of any rival claim for the position, Milawatas is placed on the map at the site of Miletos, and may be regarded as a point more than tentatively fixed. Mursil's route towards the western coast is now partially defined as follows:

HATTUSAS : (Giour- : SALLAPA : WALIWANDA : IALANDA : MILAWATAS.
BoğazKöi : Kalesi) : Spalia : Alabanda : Alinda : Miletos.

Other topographical points of interest might be adduced, but we must be content with two. Milawatas appears to have been the recognized center of an autonomous state or district, on the border of which was a fortress called Atriya. Contexts show this stronghold to have been not very far from Ialanda, but lower down. These indications are scanty, but they suit well the position of Tralles at Aidin, the strongest fortress in the lower Maeander valley. Alinda, also, which we have identified with Ialanda, was described by Strabo as one of the strongest places in Caria: it was poised on a high rock in a "steep and impressive" position—details which accord well with the Hittite contexts. More cogent to our present enquiry is the fact that Ialanda was grouped in the texts with other cities of the Lukka or Luqqa lands, including Hursanassa.²³ The localization of the Lukka lands affects the question of Mursil's strategy, for matters concerning the Lukka men called for his intervention in the affairs of Milawatas, and the escape of some of his subjects from Hursanassa and its sister cities into Arzawa led him ultimately to draw the sword. If, then, we have correctly or approximately localized Ialanda, Hursanassa and Milawatas, not to mention other sites which would involve more discussion, it follows that the Lukka lands occupied at least a good part of the Carian coast.²⁴ Mursil is thus shown to have held radical interests in this most distant part of the peninsula, and it is possible to discern something of his motive in declaring war.

The location of the Lukka lands on the Carian coast carries indeed implications of wide interest and significance. The possible identity of the Lukka men with the sea-roving Luku or Ruku of contemporary Egyptian records suggests itself, and indeed the creeks and harbors of this coast provided ideal bases, remote from the center of political authority. That Lycians, the Lukioi of Homer, did have a traditional home in Caria is recorded by Strabo,²⁵ who could not readily explain their presence or that of the Cilicians and Mysians in the vicinity of Troy, having in

²³ Dr. Gurney's notes on this question are full and clear: they confirm my early impressions, which I could not develop, owing to inadequate documentation. Cf. G.H.E., p. 179 and the map, p. 171.

²⁴ This seems to me to result also logically from the complete scheme of interrelations between all these states in the West which Dr. Gurney has sorted from the texts. It is the more unfortunate that we cannot work it out together.

²⁵ Strabo xii, viii, 4. Cf. also xiv, iii, 3: "the poets . . . give the name Lycians to the Carians."

mind the final places of settlement to which they gave their names. Egyptian sources also record the presence of Mesa and Kelekesh, as well as Luka, in the Hittite ranks at the battle of Kedesh.²⁶ Now the positions of Masa and Karkisa, though not fixed with precision, are limited by the evidence of their interrelations in the texts to the same western zone, and more particularly to fairly close contact with Mira and Seha respectively, as well as jointly with Uilusa. The latter state is placed centrally on our map, astride the vital junction on the highroad to the West, a strategic position by the Siyanti river which would explain not only how the loyal Alaksandus earned the expressions of gratitude showered on him by Mursil, but also how it was that the faithless Maduwattas, who later occupied the district,²⁷ could claim to be the sentinel and guardian of the empire. However that may be, Masa, Karkisa, and the Lukka lands are seen to have formed a connected group, which the documents show to have been linked also by political relations. So does the background to the Homeric story of the Trojan war gradually emerge from the mists that have too long obscured the historical aspect of the great epic.

Though the documentation is not yet sufficient to develop more fully the pre-Homeric picture,²⁸ the rôle played by the men of Lukka in the history of those times is becoming clear. Not only did they take part as land troops in the battles of Kedesh and Troy, but, throughout the fourteenth and thirteenth centuries—the period of the Hittite Empire—they appear as ringleaders in piratical adventures carried out in concert with one or more of their neighbors. In Egyptian records they figure among the sea rovers as early as the Amarna period. Later in the century they appear again on the Egyptian horizon, this time in company with Mesa and Kelekesh, doubtless from Masa and Karkisa. Frequently, it is said, they raided Cyprus, and in one such expedition, about 1230 B.C., they are associated with the "Ekwesh," who are identified with the Ahhiyawans by a parallel record in the Hittite archives.²⁹ The organizing center of this combination we have found at Milawatas on the estuary of the Maeander. It seems also hardly possible to doubt that these Ekwesh-Ahhiyawans were in reality Achaeans. The allusion by Diomedes and Glaucus, in the *Iliad*,³⁰ to a former comradeship between their Achaean and Lycian ancestors may well refer to the days when their respective progenitors from Ahhiyawa and Lukka roamed the sea together in search of booty and adventure.

In view of the duration and ever increasing range of the organized piracy based on the Lukka lands, it is reasonable to infer that the coastal cities of that area must have grown rich on their spoils. Consequently, it may be that Mursil's anxiety to retain his grip on these distant cities was not altogether disinterested. Strategically, none the less, his motive was sufficiently impelling. He could not ignore the danger to his interests and indeed his throne, should the Achaeans enlarge their footing and join hands in a hostile combine with the Arzawans, who, on their side, were already

²⁶ Cf. Breasted, *AR*, iii, 309, 312. "Pedes," mentioned in the latter list, may represent the contingent from Pitassa. For Egyptian drawings of these western allies, cf. G.HE., pl. IIb and IIIb. Cf. also Goetze, *Kleinasien zur Hethiterzeit*, p. 22.

²⁷ Cf. G.Mad., pp. 25, 31.

²⁸ In this connection, note the significant mention of Keteioi in *Odyssey* xi, 521. Cf. G.HE., pp. 43, 172.

²⁹ *B.AR* iii, 579; Fo. *MDOG*, 63, p. 21 f.; KUB. xiv, 1; G.Mad., p. 16 f.

³⁰ *Iliad* ii, 815-17.

encroaching on the coveted Hittite territory between them.³¹ Such a combine was actually in the making, and clearly lay behind the formal *casus belli*, when Mursil decided to draw the sword against his nominal vassal, the Arzawan king.

Returning now to Sallapa at Sivri Hissar, and viewing the situation afresh from the Hittite standpoint, we see that the roads that led to the southern and western seaboards, by the valleys of the Calycadnus and the Maeander respectively, formed strategic barriers against the expansion of Arzawa. To compare them, however, with military scissors or pincers would hardly be appropriate, as we do not find any record of an attack against Arzawa proper by those ways, though it is clear that the Hittite king maintained and used them, directly or through the medium of loyal vassals,³² for the protection of his imperial interests. In the campaign before us, moreover, the attack seems to have been frontal and directed against the heart of the enemy's country from the nearest vulnerable position on his frontier.

After he had been joined by the contingent from Carchemish, Mursil led the combined force southwards to Aura, which — as Dr. Gurney pointed out — identifies itself readily with the classical Amorium.³³ There he was joined by another ally, the loyal king of Mira, who reported a large concentration of enemy troops by the Astarpa river which marked the frontier ahead and so equates with the inland Cayster. To avoid this force, the king of Mira must have crossed the frontier farther west, as might be done at Afion Kara Hissar, whence there is a direct road to the site of the rendezvous. This, indeed, seems likely, for the king is credited with having just defeated an enemy contingent at Hapanuwa, and this place, we learn later in the narrative, was a frontier post, restored at the close of hostilities by Mursil in the interest of his loyal vassal. Its name, Hapanu or Hapanuwa, seems to be perpetuated in the real form of the modern name, Afion,³⁴ while the "Black Fort" which once formed the acropolis of the classical city and still dominates the place, may be seen from our photograph fig. 1 to be crowned by the remains of a mediaeval fortress. In this are traces of megalithic walling, which may well mark the line of older Hittite defenses.

Mursil had concentrated at Aura for the coming test a great army of charioteers, archers, and infantry, and the final onslaught on the enemy positions must have been impressive. Unfortunately, no tactical details are on record, but the final battle was decisive. It took place by the Astarpa river at Walmaa,³⁵ a name which possibly survives in the classical Holmoi, a little way to the south, though a position which more directly opposed the crossing of the frontier river would seem more likely. In any case, the day was lost for Arzawa, whose united forces broke and fled before the swift-moving Hittites, and sought the safety of their mountain strongholds. One

³¹ Note particularly the alienation of the Seha River land, which does not appear to have formed part historically of the domain of Arzawa; also the menace of an attack on Ialanda.

³² E.g., Alaksandus of Uilusa, and Mashuilas, king of Mira, Mursil's ally in this campaign.

³³ A variant form, Aïdion, is noted by Ramsay, HG. tab. f, p. 223.

³⁴ The modern tendency to write this name Afium is an assimilation to the word Opium, the cultivation of the poppy being a local industry.

³⁵ The spelling Walmaa, though perhaps explainable on other grounds, distinguishes this name from that of the district Walma, and it may have some special significance. Cf. Alaassas, a village in Harziuna, which equates well with Aliassos; also Uilusa and Uilusia.

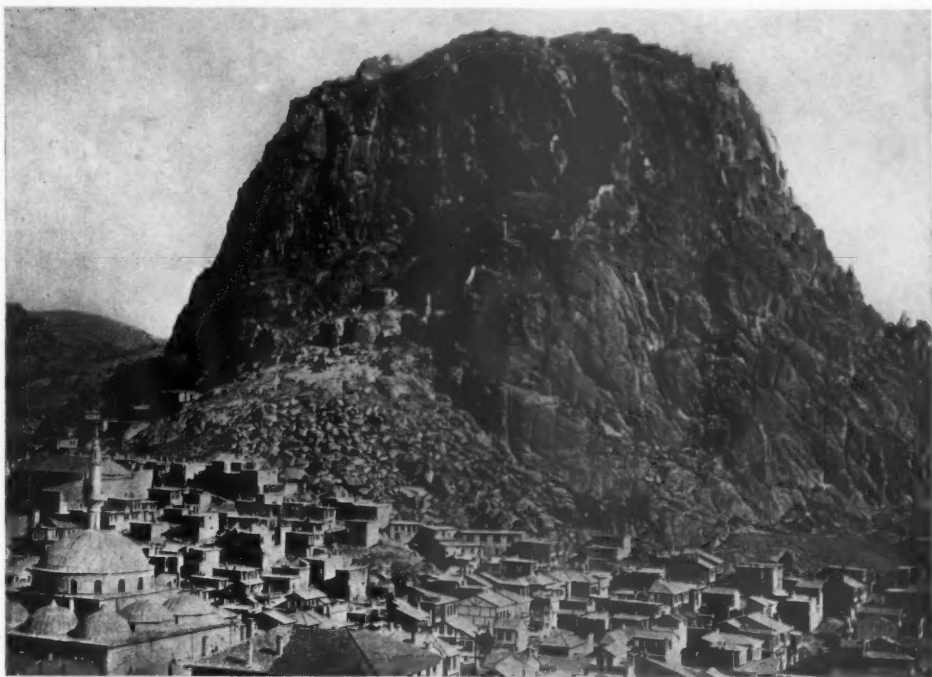


FIG. 1.—THE BLACK ROCK FORT OF AFION KARA HISSAR ON THE INLAND CAYSTER FL.: POSSIBLY THE HITTITE FORTRESS OF HAPANUWA ON THE RIVER AŠTARPA
(Courtesy of Hamit Zubeyr Koşay, Director of the Service of Antiquities in Turkey)



FIG. 2.—PINGAN, POSSIBLY THE HITTITE PAHḪUWA, THE BRIDGE HEAD OF NW IŠUWA

contingent, separating from the rest, took refuge on the hill station of Buranda, which may be appropriately equated with the acropolis of Celaenae, a position deemed by Alexander the Great to be impregnable in his day. Its situation is indeed both imposing and strategically important. Placed at the mouth of a glen, at an altitude of 2800 feet, it commanded the main road from Holmoi and the Cayster (by which the fugitives must have come), as well as the valley road to the west and a main route towards the south. It is perhaps not without significance that a cave at the foot of this hill is associated in classical legend with a combat between Marsyas, who would be a local hero, and Apollo, with whom the Hittite storm god was not infrequently identified. Unfortunately, the topographical details given are not sufficient to identify the site definitely, but as the stronghold would be well known to all the people of the country as offering the best chance of safety, and lay beside a road leading from the scene of the disastrous battle, the identification seems probable, especially as no other place that so completely satisfies the conditions can be located within the area of search.³⁶

Meanwhile, the bulk of the defeated Arzawans were swept on southwards by the pursuers, making use, we may suppose, of the several routes which follow the natural fall of the rivers of Pisidia towards the Mediterranean. Arrived at the coast, a hundred and fifty miles as the crow flies from the scene of the battle, they would find themselves driven into converging routes down the eastern coast of the Lycian promontory, to the foot of the Chelidonian ridge. This mountain, like the Arinnanda³⁷ of the narrative, is steep and high and craggy, and, as is well known to navigators in these waters, it descends at its southern tip below the sea (to form the Hieria Acra). Moreover, the name Arinna can be claimed as Lycian, being found in differing forms on a local coin and on the obelisk of Xanthos. Probably it means "spring": the plateau which tops this historic mountain is well supplied with springs, and offers unlimited opportunities for shelter and defense. Here, then, is a mountain refuge conforming in all material respects with Mt. Arinnanda of the record, where the second batch of routed Arzawans (to the number, it is said, of 15,000) sought safety, and were captured only after a siege by Mursil's generals.

A track which crosses the same ridge near its southern end leads down on its western side to Anti-Phellus. This ancient protected site is found lying snugly by the north side of a navigable harbor to which a long arm of rock serves as a natural breakwater, while the picturesque island of Castelorizo looms up some six or seven miles off shore.³⁸ Here, uniquely on this coast, we find the criteria for the location of Apasas, the Arzawan capital, to be satisfied. It occupies a fortified position by the sea; it has ready access to a neighboring island, which has always maintained contact with the shore; and it is linked by road, as the texts require, not only northward with the heart of the Pisidian lake land, but also northwest with the Seha and the

³⁶ Mursil eventually captured the stronghold of Buranda by cutting the water-supply, a detail which may help in its identification.

³⁷ Cf. G.Ix.HN, 1923, s.v. *Arinnanda*. The mountain mass, the Tahtali Dag, was the classical Solyma Mons.

³⁸ This island is called in Turkish Meis, and forms the easternmost member of the Turkish Dodecanese. An attractive drawing is reproduced in Fellowes, *Lycia*. A ground plan of the site of Anti-Phellos appears in Spratt's *Lycia* i, p. 16.

Lukka lands, in addition to its natural connections east and west along the coast. With so many points of agreement established, the possible identity of this site with Apasas will be admitted, but a forgotten fact, of which we are reminded by Richard Barnett, rounds up the evidence in convincing fashion: to wit, that the more ancient name of Anti-Phellos was actually Habessus.³⁹ Accordingly, we place the lost Arzawan capital at this point on the map, as a position tentatively fixed. Excavation will one day decide the question; and the happy archaeologist who explores this attractive and historic site may be rewarded by recovering the archives of a kingdom which in its day had contact not only with Egypt and Hatti, but also with the Achaeans and the Mycenaean world.

These considerations establish a possible line of route between Sallapa and Apasas: it is, however, indirect, and it was not necessarily followed throughout by any particular contingent of the victors or the vanquished.

SALLAPA : AURA : WALMAA : BURANDA : MT. ARINNANDA : APASAS
 Spalia : Amorium : ?Holmoi : ?Celaenae : Solyma Mons : Habessus

We cannot dwell longer upon the story of Mursil's exploits in the West, but the sense of reality with which even this tentative outline of a map imbues the narrative enables us to appreciate to some extent the thoroughness of his preparations, as well as the speed and overwhelming power of his blows. The campaign was so far successful that Mursil found it unnecessary to lead a punitive force against the land of the River Seha as he had proposed. Waylaid, like Coriolanus, by a weeping delegation from the rebellious districts, he allowed himself to be appeased. We cannot but regret this ending. Some topographical details about the area in question and the neighboring Lukka lands would have been doubly welcome. The apparent survival of Hittite place-names in Caria and the cycle of classical legends associated with the district⁴⁰ offer a fruitful and indeed fascinating field for further investigation.

III. THE DISRUPTION OF AZZI-HAYASA

Having traced some ramifications of the great west road towards the southwest coast, we now turn east, towards the highland zone between the Euphrates and the Black Sea which we have already tentatively assigned to the united kingdom of Azzi-Hayasa. The records concern the activities of Subbiluliuma on the one hand and of Mursil on the other.

The site of Hattusas is linked by local tracks with the main road east at Nefezköi (Cl. Tavium, where I place Tawinia⁴¹) and at Yuzgat, identified below with Katapa. Thence it proceeds by Geune past Sulu Serai and Bolus, to Yeni Han and Sivas. Its course is marked by Roman military stations along the Pontic frontier discussed below. At Sivas it divides, one branch continuing to follow the Halys,

³⁹ Strabo, p. 666; also Pliny v, 28: *Antiphellus quae quondam Habessus*. Cf. Bilabel, *Gesch.* p. 66.

⁴⁰ Cf. G.H.E., p. 80.

⁴¹ This location seems to explain the name of one of the main entrances to Hattusas, called the Tawinian gate, better, I submit, than that of Etonia, suggested by Goetze, which is placed by Anderson (questionably) on the road from Chorum to Amasia, and would seem, in any case, to have been separated from the capital by the site of Alaça Huyuk. On the subject of the road through Tavium, cf. R.H.G., p. 268 f.

while the other turns south at first and climbs easily over the watershed of the Euphrates towards Kangal. Resuming its easterly course, it follows the stream which flows past Kangal and Divrik down to the Euphrates which it meets and crosses just below the great bend at Pingan. This crossing is historic, and the modern railway from Sivas to Erzingan follows the same route. Here, on the east side of the Euphrates, we enter into the domain or the borders of Isuwa, a Hurrian kingdom which, from a comparison of Assyrian and Hittite records, is known to have occupied the loop of the Great River on that side and so presumably claimed the Murad Su as its central feature. A name connected textually with Isuwa is Pahhuwa, a place with whose elders Subbiluliuma came to some arrangement in a formal document.⁴² An agreement with the people living near Pingan would clearly be necessary for Subbiluliuma, if he would avoid a conflict each time he wished to use this strategic crossing, and the name of Pahhuwa (pronounced probably Pan-kuwa) suits the modern name of Pingan well ⁴³ (fig. 2).

Proceeding from Pingan up the south bank of the Euphrates, we come at a distance of 30 miles to Kemakh (fig. 3, *Kemah* in modern Turkish). Here both road



FIG. 3.—KEMAH (KEMAKH), SITE OF THE CLASSICAL CAMACHA AND POSSIBLY OF THE HITTITE KUMAHA, THE DOORWAY INTO ISUWA FROM THE SOUTH. HERE ROAD AND RAILWAY CROSS TO THE NORTH SIDE OF THE EUPHRATES

and railway return to the right or northern bank of the river. Below this point, all around the bend, almost as far as Malatia, the Euphrates flows between rock walls which frequently become sheer precipices (figs. 4, 5). Openings in these opposite to one another, such as those at Kemakh, are few but permanent. Kemakh thus represents a strategic bridgehead. Now the march of Subbiluliuma and his father Tudhalia III is said to have been opposed by the forces of Krannis, king of

⁴² I have no translation of this text at hand, and confess to be creaming Dr. Gurney's interesting notes on this subject. KUB. xxiii, 72, obv. 31, rev. 16.

⁴³ A local pronunciation is Pinkan, which appears on some maps.



FIG. 4.—THE EUPHRATES BETWEEN PINGAN AND KEMAH



FIG. 5.—BETWEEN PINGAN AND KEMAH THE EUPHRATES FLOWS BETWEEN SHEER WALLS OF ROCK



FIG. 6.—ERZINGAN: CITY MOUND OF THE EARLY BRONZE AGE

Hayasa, at a place called Kummaha, which also is associated textually with ISUWA. But the classical name of the site at Kemakh is known to have been Camacha, which gives an almost perfect equation with the Hittite Kummaha, while the modern form indicates the tenacity of the name.⁴⁴ If these considerations are not illusory, Kemakh marks the gateway from the South into the territory of Hayasa, later absorbed into the united kingdom of Azzi-Hayasa. The suggested localization of Hayasa, and an alternative line of approach by the Upper Halys, seem to be indicated in other contexts.⁴⁵

Before leaving this road, we may note that the Hittite name of Kangal was possibly Hahhas, as I have argued elsewhere,⁴⁶ in a search for certain sites beside the Euphrates below Pingan. Later in this article we shall also find Sivas to have been connected with Pala, a frontier district under Hattusil in the age of Mursil, if not actually the city of that name. We thus establish tentatively a defined line of road from Hattusas towards the Euphrates and the East:

HATTI : { HATTUSAS : ?PALA : HAHHAS : PAHHUWA : KUMMAHA : } HAYASA.
 { Boğaz-Köi : Sivas : Kangal : Pingan : Kemakh : }

Returning now to Sivas, we follow this time the road to the northeast, which keeps to the Halys valley as far as Zara, where it turns in the required direction by way of Purkh, the classical Nicopolis. This also marks a natural and strategic road junction in its area, and local history tells of numerous battles fought for its possession. The ancient site lies about a mile east of the modern village. In addition to its connection with Zara, roads radiate from here south-east to Kemakh and Erzingan (fig. 6), eastwards by the difficult valley of the Lycus, northwest to Koilu Hissar, and so down the north bank of the same river past Milet towards Niksar. The configuration of the country precludes any but local deviation from these routes, which, except for short-cuts, follow the same tracks now as in Roman times. But that which we are tracing leads on northeast to Shabbin Kara Hissar, the classical Colonia, still one of the strongest positions in the whole of Asia Minor. This site is impressive: the town is built around the base of a lofty rock, which is crowned with fortifications and has access by a subterranean passage to a spring. Here the route turns north and bifurcates for the passage of the coastal range, but both branches have the same objective, namely Kerasund. The nearer way crosses a saddle, while the other makes a considerable detour. Arrived at the shore of the Black Sea, we find Kerasund to be placed on a hilly promontory, which, as usual, is crowned by a fortress having subterranean access to water. Eastward, mountains descending to the sea form a background to the setting as viewed from the coast road which connects it with Ordu in the West. Here at Karasund we locate Aripsas, the capital of Azzi, which according to a rea-

⁴⁴ This identification, which seems to suit the situation perfectly, was suggested to me by Dr. Gurney's Mss. Cf. also Fo. *Caucasica* ix, pp. 2-3.

⁴⁵ E.g., in Mursil's *Annals* of the Ninth Year, in particular, p. 115, which records the invasion of Istitina and Kannuwaras by the people of Hayasa from the highlands. Cf. further the invasion of Dankuwa, p. 97.

⁴⁶ In *JNES*, 1942, under the title "Šamuha and Malatia." The name Hahhas would presumably be pronounced Khankhas. The Cappadocian form was Hahhum.

sonable restoration of the text stood "IN the sea."⁴⁷ This indication may seem vague, but it is exclusive, for it corresponds uniquely with the description of Aripsas among all the ancient sites on this part of the Black Sea coast. It also conforms exactly with the sparse but graphic description of Aripsas when finally overrun by Mursil in the chief campaign of his ninth year.⁴⁸ Other topographical allusions in this narrative offer corroborative testimony of a special kind.

The route taken by Azzian raiders which brought them into conflict with the Hittites, and must accordingly have led southwest, passed (like that from Hayasa) by way of Kannuwaras and Istitina.⁴⁹ Assuming that Aripsas is correctly located at Kerasund, these two places will correspond respectively with Purkh and Zara. The fortified position of Shabbin Kara Hissar represents the inhabited hill station of Dukkama in Azzi, with which it corresponds closely in all known particulars, viz., its topographical features and its situation in relation to Aripsas. We thus establish tentatively the following route:

HATTUSAS : ?PALA : ISTITINA : KANNUWARAS : DUKKAMA : ARIPSAS
Boğaz Koi : Sivas : Zara : Purkh : ShabinKaraH. : Kerasund.

Circumstantial evidence favors these suggestions. The road thus indicated follows, as we have seen, the one direct route between the Hittite capital and Kerasund, and the argument holds good if we are to recognize that Mursil's expeditions, or those led by his generals, started from some military center other than the capital, such as Hakis, the headquarters of Hattusil's command for the protection of the Gasgan frontier.⁵⁰ This place lay seemingly to the immediate east of Hattusas, since Mursil called in there when returning home from his campaign⁵¹ in the eastern highlands. Istitina, again, appears to have been the center of a small state or district bearing the same name⁵² and this is also the case with Zara. From this place, it may be noted, a permanent road leads southward over the watershed to Kangal and Divrik, so connecting with Malatia and the Euphrates valley, and providing northern raiders with a ready line of approach in those directions.⁵³ Discussion of these and other details would lead us off our course, but they involve considerations

⁴⁷ *Caucasica* ix, p. 15 ff., confirmed by the reading in note 68, below.

⁴⁸ It is instructive to compare the following translation of the text from KBo. iii-iv, ll.35-38, by Dr. R. S. Hardy, with the relatively modern account by Hamilton.

HARDY: In this year I went into the land of Azzi . . . (36) . . . and the population occupied the fortified cities . . . (32) and I fought (against) the two fortified cities of Aripsas and Dukkamas. (KBo. iv, 4 ff.) . . . and in Aripsas I marched (to battle); however the aforesaid Aripsas was i(n the s)ea; furthermore whatever population belonged to it now (held) a rocky mountain (and) moreover it was very (over) high; and since all the (people of the) land had gone up, and all the troops held it, then I the Sun fought it."

HAMILTON: "The town of Kerasunt . . . is situated on the extremity of a rocky peninsula connected with the main by a low wooded isthmus . . . the highest point is crowned with the ruins of a Byzantine fortress, from which a strong wall with Hellenic foundations stretches down to the sea on both sides. . . . A small mosque has been raised on the ruins of a square tower: the blocks of stone, a dark green volcanic breccia, are of gigantic size. Between these walls we descended by secret steps to the beach. Here the rock had been cut, presenting a perpendicular face up which another flight of steps led back. (*Researches in Asia Minor*, pp. 262-63).

⁴⁹ G.M.An., p. 123, ll. 18 ff.

⁵⁰ G.Hat., p. 21, etc.

⁵¹ G.MAns. ix, p. 131.

⁵² G.*id.* pp. 89, l. 71; 93, l. 10, f.

⁵³ E.g., G.Hat., pp. 17, ll. 18-20. G.M.An. Yr. vii, p. 89, ll. 33-34.

which are essential to the correct location of Azzi and its neighbors. Meanwhile, the texts provide more direct evidence on the subject of this road.

It is noticeable that while most raids by the Northerners, whether Azzians or Gasgans, followed independent routes which show no point of intersection, the Azzians shared the route by Kannuwaras and Istitina with the Gasgans of Tibya.⁵⁴ It is to be inferred in explanation that Azzi and Tibya were neighbors and that their most ready, if not sole, access to the South led by this route. Turning to a map showing the physical features of the northern coast, we cannot help being struck by the peculiar character of the terrain lying to the west of Kerasund, between the Lycus valley and the sea. This coastal area is not only divided into a series of parallel valley-districts by the rough ridges between them, but is cut off as a whole from the interior by the bold range which forms the northern watershed of the Lycus. Through this there are only two practicable openings on the road which follows that river, namely, that which connects Unieh with Niksar and Tokat (and so led into the domain of Hatti), and that which connects Ordu by way of Milet with Koilu Hissar and Purkh. From Milet the Lycus road leads equally to Niksar and Hatti, but to raiders from the district of Ordu, the obvious outlet giving access to the Hittite highlands, while avoiding the military zone of Hatti, would be that by way of Purkh and Zara. The valley-district of Ordu, which adjoins that of Kerasund, thus fulfills the conditions indicated for the domain of Tibya—a further and significant point of agreement in the argument. The two districts are connected by the continuous road along the coast. This, to judge from Hamilton's vivid description,⁵⁵ is by no means easy: the ride takes about 12 hours, and not far from midway it crosses a rocky ridge which would provide a natural boundary. Inland, by the Lycus valley, the strong road stations of Asha Kaleh (the lower castle), and that which is called the Castle of Koilu Hissar, though it rises some miles east of the village of that name, may indicate approximately the respective borders of the Hittite "kingdoms" of Tibya and Azzi. Indeed, the latter may seemingly be identified, for Mursil's *Annals* of the seventh year, which are mostly concerned with these two districts, refer to the frontier post of Azzi in a special item. It was called Ura, and its defenses were perched on a steep place. Mursil shows a particular interest in these, instructing the messengers who carried a diplomatic note from him to the king of Azzi,⁵⁶ to take good note of their construction. The present fortifications are perched on a precipitous crag overlooking a gorge of the river from its northern side,⁵⁷ at a point which controls also a branch road from Purkh.

Further information is found in the *Annals* of Mursil's Tenth Year, which describe his final campaign against Azzi and supply some valuable topographical details. For more than a year previously his generals, based on Pala, had been kept busy by this refractory enemy: as usual Kannuwaras and Istitina appear conspicuously in the record of their doings. This time Mursil planned a concerted attack on the enemy's homeland, leading his household troops and chariotry in person, with Ingalawa as the appointed rendezvous. This name appears now for

⁵⁴ G.M.Ans., p. 89, l. 33; 93, l. 13, etc.

⁵⁶ G.M.Ans., p. 99, ll. 20-24.

⁵⁵ Hamilton, *Researches*, pp. 262 ff.

⁵⁷ Murray's *Handbook*, p. 46.

the first time, while there is no mention of Ura or Kannuwaras. Obviously, Mursil took some other road, but, as we have already noticed, there is only one other way of approaching Kerasund, namely, by the valley of the Lycus. This route would, in effect, be the nearest for Mursil's force, as it could be approached directly from the military stations of Hatti by way of Tokat and Niksar, while his generals from Pala or other eastern outposts could reach the point of concentration by the familiar road. Looking now for a likely place for such a meeting in the Lycus valley before reaching Ura, we notice the road junction at Milet; and in Mr. Anderson's excellent map of the country in Roman times we find the classical name of this junction to have been Megalula. This is an ancient site,⁵⁸ and its name makes a plausible equation with Ingalawa. We now notice with fresh interest two points in the narrative, first, that Mursil in his onslaught reached Aripsas on the coast before attacking Dukkama—about this the text is explicit;⁵⁹ second, that three years previously the district of Tibya had been overrun and reduced, apparently in prevision of the major campaign to follow.

The picture puzzle now takes shape, and, as it should be, there is only one solution that holds together. Mursil assembled his forces at Milet-Ingalawa, and with a characteristically rapid march down the valley to Ordu and along the coast, he took the capital ARIPSAS by surprise. Having secured its submission, he proceeded the next morning to Dukkama, where the bulk of the Azzian forces would doubtless be anticipating an attack from the south. Taken in the rear, and dismayed by the fall of the capital, the people of Dukkama capitulated and begged for mercy.

If this part of our argument has been long, it is because, as stated at the outset, we were not on sure ground in the location of Hayasa or of Azzi. Having now considered the evidence afforded by three episodes and the topographical descriptions in the texts, we find all to be perfectly consonant with the positions indicated. There is thus an inductive probability that this solution is correct, and the value of this result is enhanced by the difficulty, if not the impossibility, of finding on the maps or on the spot any other combination of sites and roads and names that could meet the case so simply and completely.

IV. THE FRONTIER OF GASGA UNDER HATTUSIL

It will be appropriate at this stage to consider briefly the organization of the Gasgan frontier, which constitutes in effect the military zone of Hatti. This is a big subject, as students of Dr. Goetze's work will realize;⁶⁰ and we cannot attempt to discuss it with any sense of completeness in this article. Some consideration is, however, essential to the localization of PALA and TUMMANA which are involved in the next stage of our inquiry. It will be sufficient to consider the alignment of stations on the Gasgan frontier under Hattusil's command in the reign of Mursil. The list is given in Hattusil's own *Memoirs*⁶¹ as follows:

⁵⁸ In the interior of Pontus Polemoniacus: Ptolemy, p. 118.

⁵⁹ G.MAns., p. 135, l. 17.

⁶⁰ See, in particular, his exhaustive review of the interrelations of the Gasgan towns in RHA. i, pp. 18-32.

⁶¹ G.Hat., p. 21, ll. 57-61. The text is intact.

ISHUBITTA : MARISTA : HISSASHAPA : HANHANA : TARAHNA : HATTENA : DURMITTA : followed by PALA and TUMMANA.

Something is known about most of these places. Ishubitta was an important center and headquarters of a district.⁶² It was connected closely by road with Marista, the next place on the list, and also with a Gasgan town, Pishurus. All three of these places were also connected by road with Taggasta, as well as with one another, for they were all involved, singly or in groups, at various times, in local raids upon the others.⁶³ Their relative positions may be represented thus:

[West] TAGGASTA { PISHURUS } ISHUBITTA [East]
MARISTA }

Now Taggasta is known to have been near the Halys, for from there Mursil twice embarked on an excursion into unknown territory on the other side, mentioning names of places not found in any other context. Indeed, he states expressly in his *Annals* of year nineteen that no Hittite king had previously penetrated into that region.⁶⁴ This clue is important, for it is already clear that Subbiluliuma in his campaigns to Isuwa and Hayasa, and Mursil's generals in their wars with Azzi, let alone Mursil's own expeditions into the Gasgan highlands, must have explored time and again both sides of the upper Halys previous to these excursions into *terra incognita*. Taggasta, therefore, must be located on the lower Halys, not far from the Gasgan border (which enclosed Pishurus). This being so, Ishubitta, chief town and center of an important district, lay clearly to the East, and must be identified with Amasia, the classical Amaseia, which alone responds to these indications in the area indicated. With Ishubitta located at Amasia, the foregoing considerations would be satisfied by placing Taggasta at (say) Tozlu Burun, near the Halys; Marista at the road junction of Chorum (classical Euchaita), and Pishurus, a starting point for Gasgan raids, farther north at (say) Marsowan. Closer identification is not possible, for the classical sites do not necessarily correspond with the older Hittite centers. These certainly existed, as witness the numerous city-mounds (Hüyüklar) and fortified hill stations which exploration has recorded,⁶⁵ but their precise positions at the period of the narrative have yet to be determined by excavation.

⁶² Cf. G.MAns., pp. 19 ff. The records of Year I suggest that Ishubitta and Durmitta between them were regarded as normally responsible for the security of most of the home front on the Gasgan border.

⁶³ The argument is rather long. The reader will allow me to refer again to Dr. Gurney's Mss. which shows this result clearly. The cardinal points are inferred from the localization of Taggasta which follows.

⁶⁴ G.MAns., p. 151, ll. 37-38. I do not attempt to follow Mursil in this campaign, which would take us far afield, but the first station beyond the Halys may well have been Iskelib, where J. G. Anderson (in his *Studia Pontica*, p. 4f.) describes a hill station which might represent Istalubba. Criteria are, however, almost nil, though the contacts disclosed in the records of year XXVI, when Mursil again led an expedition along the same routes, present some ultimate possibilities.

⁶⁵ The coastal area, including Marsovan, is described by Hamilton (*op. cit.*, pp. 364 ff.). Several mounds in that vicinity are recorded (in *OIC.* i, pp. 49 ff.) by the expedition of the Oriental Institute of Chicago, which followed the spinal route southward, noting in particular the Hüyük at Sary on the stream that flows past Chorum and a hill fortress with steps and cistern. The route from Iskelib, via Chorum to Amasia and beyond was traversed by Anderson, *op.cit.*

Resuming now our examination of Hattusil's list, we find the name which follows Marista to be Hissashapa, which (in KUB. vi, 45-46) is described as, or closely associated with, "The Palace of My Majesty." In this case, the value of excavation is realized at once, for the discoveries made at Alaça Huyuk, the next point south of Chorum, have disclosed the remains precisely of a royal palace, and little else, belonging to the imperial age. Hissashapa, then, may be either at the mound or near the village of Alaça. These results assume rather than demonstrate that the list follows thus far a line of road. This is, however, certain; for the route followed by one of the Gasgan raiding parties is described also in Hattusil's *Memoirs*⁶⁶ and followed the same line. Starting from several points, including Pishurus and Ishubitta, the raiders proceeded to capture the strong city of Marista. The next name vexatiously is damaged, but it ends in . . . pa, and so may represent either Hissashapa or Katapa, which come next in the list of Hattusil, but cannot reasonably be restored otherwise. The two lists, which seem to have followed thus far the same route, now part company. The raiders seem to have passed on by the open bridle road which connects Yuzgat with the fords of the Halys⁶⁷ and the site of Kanesh. The list of Hattusil, which marked the frontier of Gasga, turned inevitably eastward, and that it still followed a line of road becomes clear by comparing it with the route-march of Subbiluliuma towards the Southeast, which it is our purpose to investigate. This we shall find involves Istahara, one of the greater military centers of Hatti, and thereafter follows the frontier route past Hattena as far as [Dur]mitta. Though it is not possible to discuss the line of this route in detail within the scope of the present article, a summary of conclusions is essential to the argument. In general, the frontier zone is disclosed by the position of Hittite monuments (discussed above, in section I), and by the starting point of certain raids (which include Gaziura on the Iris),⁶⁸ as the basin of the Scylax, an affluent of the Iris. The particular problem of the Hittites was thus much the same as that which later confronted the Roman legions on the frontier of Pontus. We find, in short, that the stations on Hattusil's frontier list correspond point for point with the well known military camps and posts of Roman date between Yuzgat and Sivas. The sequence is as follows:

KATAPA	:	HANHANA	:	HATTENA	:	ZIPLANDA	:	DURMITTA	:	PALA
Yuzgat	:	Geune	:	SuluSerai	:	Bolus	:	YeniHan	:	Sivas
?Seralus;		(Rd jtn)	:	Carana	:	Verisa	:	Siara	:	Sebasteia.

The important military stations of Istahara and Hakpis, which are closely linked together and coupled with Hanhana in a further detailed list of Hattusil,⁶⁹ fall into their places in this reconstructive scheme at Mithridation and at Alishar respectively. Needless to say, the Hittite origins of the classical sites mentioned have still

⁶⁶ G.Hat., p. 15, ll. 3-7.

⁶⁷ Dr. Gurney's translation of this part of the text (Hat. ii, ll. 5-6) corresponds exactly with my recollections of this route which I traversed in 1907. From Yuzgat it follows a desolate course through the plains and marshlands of the Cappadox, encountering no town, ancient or modern, until reaching the Halys. The raiders of this text, heading for a ford opposite Kanesh, may have passed more to the east, possibly by the village of Çalap Verdi which is marked by a Hittite monument. In either case the route is open, if we except an ancient mound beside the latter, between the village and the river.

⁶⁸ G.Hat., p. 15, l. 8.

⁶⁹ G.Hat. Suppl., p. 23; iii, ll. 31-33, with which, cf. G.Hat., p. 47, ll. 26-27.

to be established except in the last two cases; and topographical details must be examined afresh before these suggested locations can be regarded as more than tentative. The positions allocated do, however, build up together into a reasonable picture with a historical background, in complete conformity with the textual interrelations worked out so exhaustively by Prof. Goetze and more recently on fresh lines by Dr. Gurney. But my main conclusion differs from theirs in one vital feature, namely, the orientation of the scheme as a whole.⁷⁰

Regarding the frontier as a line, my result finds Ishubitta, the starting point, to the northwest of Durmitta. The argument rests on the position of Taggasta on the Halys, opposite no man's land which I cannot place otherwise than by the lower Halys. This is confirmed, I submit, in several ways, not the least important being the relative position of Durmitta itself, at the southeast end of the line. It matters little whether Durmitta should be located at Sivas or elsewhere, rather than at YeniHan where it is tentatively placed in this scheme; the point is that, of all the places mentioned on this frontier and of many others connected with them in the texts, Durmitta alone appears among the allies of Isuwa which revolted against Subbiluliuma.⁷¹ Placed in the Southeast, its position appears logical, whereas in the Northwest it would be the farthest removed of all from Isuwa. One other difficulty involved in the old arrangement appears to me insuperable, namely, the localization of Pala and Tummana. These two provinces or districts were grouped together under a single command by Subbiluliuma, and in the next reign are mentioned immediately after Durmitta as coming within Hattusil's command on the Gasgan frontier. They were thus contiguous; and other contexts associate them inseparably with the Highlands. The familiar location of these Hittite military districts in the far Northwest beyond the Halys surely ignores the decisive fact that Tummana comes after Hattena and [Dur]mitta on Subbiluliuma's march southeast towards Harran. All these inconsistencies disappear by placing Durmitta at the southeast end of the local Gasgan frontier which beyond that landmark continues to follow a logical and geographical sequence in the same direction as Subbiluliuma's route.

V. SUBBILULIUMA'S ROUTE TOWARDS HARRAN

The record of Subbiluliuma's expedition to Mesopotamia (for which I rely entirely on Dr. Gurney's readings),⁷² shows that before quitting the zone proper to

⁷⁰ Dr. Gurney's notes recognize the difficulties which result from the usual orientation, with Ishubitta in the Southeast and Durmitta in the Northwest, and when placing this Mss. in my hands in 1939, he suggested that I might usefully try the result of inverting the whole network of interrelations which he had worked out. This is, in effect, what I have now done. He pointed also to the weak link connecting Saddupa and Dankuwa in the old scheme. The textual juxtaposition of these names proves, in fact, to have no geographical significance.

⁷¹ Among the allies of Isuwa mentioned twice in Subbiluliuma's treaty with Mattiuaza, appear the following: Arawanna (invaders of Gassiya); Zassa (? Zazissa); Kalasma (north of Syria and linked with Tummana); Timna (? Tummana); Durmitta; Hurma (linked with Samuha; ? Urumia Hüyük below Pingan on the west bank of the Euphrates); Tegarama (opposite Isuwa); Teburzia; Armatana (invaders of Kizzuwadna).

⁷² The text, from KUB xix, 13, is translated by Cavaignac in his *Subb. et son Temps* (pp. 86-7), but his transliteration is confusing. In general, however, the narrative shows that the several detours made by the warrior-king from the direct route of the expedition had for objective the restoration of order in disaffected districts.

Hatti, the warrior-king visited a number of places on the home front, some of which are shown from other contexts to have been frequent centers of disorder,⁷³ while others are unknown. Omitting these, the main itinerary appears as follows:

ISTAHARA-HATTENA-(3 places)-[DUR]MITTA-(. .)-HURNA-MT. TIHSINA-(. .)-R. MARASSANTIA-MT. ILLURIA & SAPPIDUWA-TUMMANA-MT. KASSU, R. DAHARA & PAPINUWA—"back to" TIMMUHALA-GA[SSIYA]—on (after an interval represented by a gap in the text) to HARRANA, WASSUGANI & GARGAMIS.

We have already seen that the first three places (Istahara being near Hanhana) mark the last stage of Hattusil's frontier command within the Halys, which for convenient reference we repeat, together with its continuation—

HANHANA-HATTENA-DURMITTA-PALA-TUMMANA-GASSIYA-SAPPA-Land of the
YELLOW RIVER.

Comparison of these two lists seems to justify the restoration of the two broken words in the first as DURMITTA and GASSIYA respectively. It also shows that Subbiluliuma's route, which left the frontier zone at Durmitta, rejoined it beyond the Halys at Tummana and thereafter followed it as far as Gassiya. It is also clear that, with Harran as his objective, his route would trend generally South by East, probably towards Marash for the direct ford at Samsat, since the alternative crossing of the Euphrates at Carchemish seems to have been reserved for the homeward journey. Hattusil's frontier communications through the districts of Tummana and Gassiya must have followed the same course as far as the point of separation. We must look then for some natural line of demarcation running south.

At first sight the Euphrates itself might seem to provide the required line of frontier: it flows south, and for the greater part of its course as far as Samsat its troubled waters interpose a very real barrier between its opposite banks. Examination shows, however, that whatever may have been its strategic importance in earlier times, this valley does not conform with the eastern frontier in the days of Mursil. Several of the older leading cities of the Hittites can be shown to have stood beside the river, notably Battiarik, Arziya, and Samuha, the last being one of the national sanctuaries; but not one of these well known names appears in the record of Subbiluliuma's march or on the line of Hattusil's frontier. Nor is there any allusion to Lawazantia, the home of Hattusil's queen, a district closely associated with Samuha in the texts,⁷⁴ and probably located also in the vicinity of Malatia.⁷⁵ It would seem indeed that the Hittites' hold upon the Euphrates valley dated from earlier times, possibly from the days of Kussar,⁷⁶ but in the "dark age" their grasp was loosened—Battiarik and Samuha were, in fact, captured by their northern foes from Gasga and Azzi.⁷⁷ Under Subbiluliuma and Mursil the situation seems

⁷³ E.g., Balhuisa; G.MAns. iii, p. 43 f.

⁷⁴ G.Hat., p. 47, ll. 16–17, etc. In KUB. vi, 45, also Lawazantia is placed next to Hurma which is generally linked in turn with Samuha.

⁷⁵ Dr. Gurney points out in a memorandum that the name Hasikasnuwanta, which in KBo. iv, no. 13, appears in the sequence Battiyarigga-Arziya-H-Samuha, closely resembles the name of a goddess of Lawazantia, Hasikasnawanza.

⁷⁶ Cf. Louvre iv, Tabl. 10. For this reference I am indebted to Prof. Gelb.

⁷⁷ G.Hat., pp. 17, ll. 18–20; also KBo. vi, 28 (cf. G.Kizz., p. 25).

to have been relieved by repeated punitive campaigns, which were effective at any rate in maintaining a right of way along the main roads so that Hattusil came and went to Samuha at will.⁷⁸ These considerations apply also to most of the highland zone in the basin of the Euphrates. Certain district names can be localized to this zone, e.g., Kalasma, which was connected with Isuwa and lay north of Syria; Tegarama, which lay opposite Isuwa; and Piggainarissa, which lay between Tegarama and Hayasa on Mursil's march from Carchemish and Comana. In the latter district Mursil's *Annals* also disclose numerous town names⁷⁹ but not one of these, nor any of the districts is mentioned in the lists we are considering. The interrelations of the states, and in particular their connections with Tummana,⁸⁰ are, however, fairly full and clear, and they enable approximate positions to be assigned to them as shown on the map.

The frontier zone of Hattusil on the border of the eastern highlands must thus be sought further west, along the main watershed of the Euphrates. This natural boundary is well defined: it runs along the mighty arm of Anti-Taurus, which reaches North as far as the Tonus Dag and parts the waters of the Euphrates from those of the Zamanti Su, main affluent of the Saros. Mt. Tonus, indeed, parts the waters of three different systems, for other streams flow down from it towards the Halys; and a chain of mountains, continuing from that landmark in a northeasterly direction, forms the watershed between that river and the Euphrates. Appropriately, then, the craggy summit of Tonus, visible from afar, may be regarded as Nature's boundary-post upon this line of frontier.

We had followed Hattusil's frontier zone as far as Durmitta, which seemed suitably placed at YeniHan (Siara) on the main road towards Sivas, where there is an easy and permanent crossing of the Halys. To the south of Sivas the valley is relatively wide and open, rising gradually up the southern slopes towards the watershed marked by the Tonus Dag. This district we assign then to PALA, which comes next on Hattusil's list, and is described in Mursil's *Annals* as open ground, without cover for the soldiers who had to seek shelter in the mountains.⁸¹ It is known also to have been connected with the highlands and contiguous with Tummana.⁸² There does not seem to be enough evidence to localize the city of Pala, which is rarely mentioned, unless it prove to be synonymous with "The city of the Marassantia" found in several texts.⁸³ It is worth noting, however, that the actual crossing of the river at Pala is never mentioned, leaving it open to question whether that was so much a matter of course as to escape mention, or whether Pala did not stand upon the river. In the latter event, however, one might expect the place of crossing to be suggested by another name, as in Subbiluliuma's route, which indicates a detour to a lower ford. Another point is the anxiety and prompt action taken by Mursil to keep open the roads to Pala,⁸⁴ which clearly marked a

⁷⁸ G.Hat., p. 51, l. 28.

⁷⁹ G.MAns. ix, pp. 127-28. Included among these names appears Harsama (p. 129, l. 45) which seems to be identical with the Hursamna of the Mari tablets. This was a center of horse-breeding, and has been localized by Dr. Albright with his customary perspicuity to the area indicated which is blessed with grassy "downs" and is still known as a home of this industry. Cf. BASOR. 77, p. 31.

⁸⁰ E.g. G.MAns. xxii, p. 161.

⁸¹ G. *ibid.* pp. 153-55.

⁸² G.Hat. Supl. (MVAeG 34, 1930, v.) p. 49.

⁸³ G.Hat., p. 31, iv-2; p. 49, l. 19, where it is linked with Samuha.

⁸⁴ G.MAns. v, p. 77.

strategic road center. We have already noticed the concentration of strategic roads from Kannuwaras in the Northeast, from modern Niksar in the North, and from Hattusas in the Northwest, upon the site of Sivas, from which, in turn, roads radiate to various points in the southern highlands, notably Southeast towards Malatia and due South by Ulash to Tonus, Virenshehr-Carmalis and Azizia-Zamandos. The latter, which follows the natural borderland, would form Hattusil's strategic line of communication through Pala and Tummana. The main road, which connected Sivas with Kanes, passed as now by the south bank of the Halys. As a road center, then, Sivas seems to suit perfectly the rôle of Pala.

Tummana, where Subbiluliuma's route rejoins the frontier zone, is localized by the foregoing considerations—if these are not hopelessly illusory—to the upper basin of the Zamanti Su (the classical Carmalas). This district lies to the immediate south of Mt. Tonus: it is bounded on the east by the main watershed of the Euphrates, and on the west by the Khanzir Dagh with its continuations (as far as lofty Argaeus) which separates it from the basin of the Halys. Towards the south it is closed by the Kaleh Dagh which looks down on the main cross road between Ekrek and Azizia-Zamandos. Happily, in this case, topographical indications in the texts are distinctive and seem to conform exactly with the main features of the district when approached from the West. In this respect the broad outline to be traced from the description of Subbiluliuma's march is supplemented by graphic details from the *Annals* of Mursil, who more than once campaigned in the same district.⁸⁵

Subbiluliuma's itinerary shows that Tummana lay opposite to Mt. Tihsina on the far side of the Halys, from which it was separated by the district of Sappiduwa and Mt. Illuria. It is clear that these two mountains rose approximately opposite to one another across the river, and Mursil's records confirm this picture. Both accounts also couple Mt. Illuria with a Mt. Kassu and a river Dahara; these were indeed among the objectives of Subbiluliuma's obvious detour between Tummana and Timmuhala, and of a subsequent campaign by Mursil. The map shows that, granted provisionally the approximate location of Hattena and Durmitta, Mt. Tihsina must be represented by the Ak Dagh, which overlooks the Halys for some eighty miles below Sivas, and that Mt. Illuria is equally well represented by the Khanzir Dagh, which, as already seen, faces the other from the opposite side of the valley, here about fifteen miles wide.⁸⁶ Mt. Kassu, which is associated with Mt. Illuria in both records, equates with Mt. Tonus,⁸⁷ and the River Dahara, may be the head stream of the Zamanti Su which flows past both. The correspondence, then, of the topographical indications in the texts with the actual physical features of the area is remarkably suggestive, and contributes to the general concordance of this reconstruction. The argument may be developed, but sufficient has been said to illustrate our conclusion. The test of its validity will be the extent to which all such details fit together logically into a cohesive picture.

After his detour Subbiluliuma went "back to Timmuhala," which appears to

⁸⁵ Years xxi-xxiv: G.Ans. pp. 157 ff.

⁸⁶ The intervening district would correspond with Sappiduwa, and the city of Tummana which, like Pala, is rarely mentioned, would fit well at the name site of the classical district Carmalis at Virenshehr, not far from which, at KaraKuyu, explorers have located an imperial monument. Gelb, *Hittite Hieroglyphic Inscr.*, p. 77, pl. XVII.

have been the effective starting point for the major expedition before him, and therefore to be looked for somewhat farther south. Happily in this case we know what kind of station to expect, for Mursil had several encounters with the rebels at Timmuhala, and has left us a detailed description of the site.⁸⁸ It stood on a high rough hill, too steep for horses to climb, and its approaches were protected by a ring of strong places and fortified camp enclosures. Subbiluliuma himself is credited with having constructed one of these. It evidently occupied a highly valued strategic position, as may be seen in Mursil's strenuous efforts to dislodge the rebel Gasgans who had seized it and occupied the surrounding hills. On one occasion, having razed the place by burning, together with two of its protecting stations, Zimammu and Tiyassilti, he dedicated the site to the Hittite god and declared it sacrosanct,⁸⁹ to be no more inhabited, much as Joshua did with Jericho. The rebels, however, took little notice of the ban—presumably they worshipped other gods. A site corresponding with these indications is found a little way due south on the Kaleh Dag (Castle Hill) already mentioned. On the crest of this hill there stood a castle called by the strange name Turba Kala, and lower down, both on its slopes and at its foot, are the ruins of numerous strong places, of which at least eight are shown as ancient on Kiepert's map. The whole hill, which is some twenty-five miles long, requires and deserves a thorough archaeological survey. I cannot find that it has ever been examined by an archaeologist since it was crossed by Lejean more than sixty years ago. All the same, there is no denying that a fortified place on this hill not only would be difficult to take, but would occupy a commanding situation of high importance. For the Hittites, indeed, the possession of this strategic position would appear to have been almost vital to any imperial ambitions in the South and East, if not to their national security. At Zamandos, equated on topographical grounds with Zimammu, it commanded the meeting point of two main routes: that which comes from Sivas by way of Tonus and passes south *via* Kemer and Geuksun to Marash; and that which, coming from BoghazKöi and Kanis by way of Zerezek and Ekrek, leads on *via* Geurun and the Valley of the Tochma Su to Malatia and the Euphrates. Moreover, the subsidiary stations at Kizil Han and Ekrek control the heads of alternative passes by which the same route to Marash can be joined, while the road *via* Zerezek to Tomarza gives direct access to the main passes over Anti-Taurus leading in the same direction. In short, this position had for the Hittite emperors a real importance which was both economic and military. Topographically, it agrees amazingly well with the indications in the texts concerning Timmuhala.⁹⁰ Unless our whole scheme is wrong, we may accept the location of Timmuhala at Turba Kala with some confidence.

At Timmuhala, Subbiluliuma was already knocking at the gates of Syria, but if the restoration of Ga . . . as Gassiya is correct, he seems to have avoided the defile route by Azizia, and to have crossed into the Kemer-Geuksun by one of the passes of Anti-Taurus. Two of these lay on his course: that of Karabel which can be

⁸⁷ In Particular The Kara Tonus Dag.

⁸⁸ G.M.Ans. Year xxiv, p. 169, ll. 20-34.

⁸⁹ *Ibid.*, ll. 15-17.

⁹⁰ With Zimammu at Zamandos-Azizia, the agreement not only includes other fortified positions, but extends to the routes of approach about each of which there is some special indication.

gained from Zerezek and descends on Kemer by way of the old site of Comana, the Hittite Kummani, at Shahr; and that of Dedi Bel, which is not well known to us, but is more used by the local folk, possibly because it offers more lines of approach and egress. It is true that in either case this route would have passed, so far as we can tell, through the northern apex of Kizzuwadna. For this contingency Subbiluliuma's foresight had already prepared the way by alienating the control of the district of Kummani from the king of Kizzuwadna, and placing it under his own son Telipinus.⁹¹

I hesitate to try to follow this route farther, partly because of the gap in the text at this point, and also because the ground before us is increasingly insecure. We do not know whether the Ga . . . of the text is the Gassiya of Hattusil's frontier command, and the problem of Gassiya is complicated by other considerations which would lead us too far afield. If, however, we assume—as seems reasonable—that Gassiya, the next district after Tummana on the frontier, would naturally occupy the next part of the river basin below Tummana, it would seem to have touched on the borders of Kizzuwadna. The presence at Fraktin, almost beside the river at the source of a short affluent, of a joint monument of Hattusil and Putukhipa, may be taken to lend support to this idea. As a result, we should find Pala, Tummana, and Gassiya to follow one another in natural sequence along the borderland of the Hittite Highlands, from the Halys River to the Taurus Mountains, so completing the continuous circuit of Hattusil's frontier command around the north and east of the domain of Hatti.

One further point seems to call for a word of comment. On the assumption, now generally accepted, that the Saros River is the Samri of the Hittite texts, it would seem that the dismemberment of Kizzuwadna and the demarcation of a new frontier left Subbiluliuma in undisputed possession of the road south from Azizia-Zummunu; but apparently this did not suffice to secure the passage of his troops. The route is direct and relatively easy, but it is narrow, and passes frequently through ravines. These would be flanked on the east side, so far as we can see, by the territory of Kalasma, which was counted among the allies of Isuwa who defied his authority and several times revolted in the age of Mursil. Prescience of danger from this source may explain Subbiluliuma's choice of route on the occasion of his march towards Harran.

We conclude this part of our inquiry with a rapid summary. Subbiluliuma's route from Istahara, while following in general direction the line of Hattusil's frontier zone, deviated from it at several points. Arrived *via* Hanhana at Hattena, he there visited three unknown places, doubtless in the hills, but seemingly returned to the main road at Durmitta. Here, instead of pursuing the road through Pala, he turned by way of Mt. Tihsina (the Ak Dagħ) to Hurna, whence he descended to and crossed the Marassantia (known to be the Halys) by a convenient ford used also by Mursil—probably that of Shahrkishla which is permanent and leads in the required direction. Arrived by way of Mt. Illuria (the Khanzir Dagħ) at Tummana, of which the name site would probably be that of the classical Carmalis at Virenshehr, he again left his course. This detour led him northwards to Mt. Kassu (the Tonus Dagħ), to restore order, and this fact may explain to some extent why he avoided the direct

⁹¹ G.Kiz., p. 70.

route *via* Pala which passed through that district. Turning "back to Timmuhala," where the Gasgan invaders capitulated, he seems to have avoided the direct way south from Azizia-Zimammu, and to have descended the Zamanti Su into the next frontier district of Ga[ssiya]. From here he could reach his objective in Mesopotamia by way of the Kurubel pass, Kummani-Shahr, Geuksun, Marash and Sam-sat. His route, and the places tentatively identified, may be epitomized as follows, the last stage being doubtful.⁹²

{	ISTAHARA	:	HATTENA	:	DUR[MITTA]	:	MT. TIHSINA	:	MARASSANTIA R	:	}
{	Mithridatium:	Carana	:	Siara	:	Ak Dagħ	:	Halys Fl.	:	}	
{	MT. ILLURIA	:	TUMMANA	:	MT. KASSU	:	TIMMUHALA	:	GA[SSIYA]	:	HARRANA
{	Khanzir D.	:	Carmalis	:	K. Tonus D.	:	Turba Kala	:	Tomarza Distr.:	:	Harran

In the foregoing pages I have endeavored to trace some of the vital life-lines in the Hittite imperial scheme. The method of investigation, which takes due account of the permanence and limited number of the main roads in the country, and makes use of any topographical indications in the texts, though by no means new to other fields of study, has not been employed hitherto on any scale in connection with Hittite geography. The validity of the conclusions outlined rests inductively upon the constructive accordance of all strains of evidence. If criticism discloses any radically discordant elements, correction or modification will be necessary; otherwise we can continue to build up the Map of Hittite Asia Minor with some confidence upon these lines. I would like, in conclusion, to recall my indebtedness to Dr. Gurney, whose researches provided me with the basis and stimulus for further study; and also to my friends in the Oriental Institute of Chicago who, with unforgettable hospitality, have lent me their help as well as the full facilities of their institution.

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⁹² The significance of the gap in the text at this point is stressed in a personal memorandum to me by Prof. Goetze, who doubts whether it was Subbiluliuma himself who led the expedition to Harran, which may, indeed, have been an independent campaign. Our route is good none the less as far as Timmuhala, and the general direction can be sustained by fuller consideration of the place names involved and their interrelations. I am deeply indebted to Goetze for kindly reading my proofs and suggesting numerous emendations, most of which I have endeavored to incorporate. But it should not be supposed that our conclusions are thereby brought into agreement.

AN IKON OF ST. DEMETRIUS

THE ikon that is the subject of this paper is in the possession of Mr. and Mrs. James Inglis, of Ann Arbor, Michigan, and was purchased in London several years ago from a dealer who said that it had come from Smyrna (fig. 1).¹ It may have been brought to London from Smyrna, but it was painted in another place. Near the lower left-hand corner of the main part of the painting there is a gilt medallion bearing an inscription in cursive Greek writing, of which the English is as follows:

"This holy picture was painted at the expense of the Christ-loving and pious man, Kyrios Demetrios, for the salvation of the souls of his parents; in Diakona (*sic*), March 27, 1757."

A careful search of gazetteers and atlases has revealed no place called Diakona, and it is all but certain that the writer of the inscription made a nu where the closely similar upsilon was required; he evidently intended Διάκουα (for Διάκοβα). This Diakova (Diakovo, Diakovitsa), a town populated principally by Albanians, though now reckoned a part of Yugoslavia, is situated some twenty miles north of Prizrend. It is not far from the upper course of the Vardar, which empties into the sea at Salonika, and the whole region was undoubtedly penetrated to a greater or less extent by Byzantine culture diffused from Salonika. Thus the picture may be regarded as a late and, in some respects, rather debased example of religious painting in the Byzantine tradition.

Another short inscription, to the right of the gilt medallion and just under the heel of Demetrius' conquered enemy, gives us the name of the painter: beginning under the abbreviation for Christ (Χ̄ς), the words "by Charalampos Joannes" and traces of more writing, not enough of which can be deciphered to make sense.² I find no mention elsewhere of a painter named Joannes Charalampos.

The principal design represents Demetrius, the patron saint of Thessalonica, on

¹ The measurements of the ikon, in inches, are as follows: height over all, 39½; width over all, 23¾. The black border varies from ⅞ to ⅝ of an inch in width. The lower panel, containing the medallions, is 9 inches high. The smaller medallions are 3⅝ in. in diameter, the central one 4½. Two of the smaller medallions at the left and two at the right have a segment cut off by the border. I am not competent to discuss technical details of the painting, but I have noted the following points, in several of which the opinion of Mr. J. P. Slusser has been my guide. The painter first coated the wooden board with gesso; then, in a large part, probably all, of the surface he laid down a gold ground, and on this executed the design in oils. The gold seems in some places to be a good gold-leaf, but in certain areas where the surface has been abraded, the metallic gleam resembles silver. This suggests that for those parts of the surface a cheaper process of gilding was used; probably silver leaf was laid down and burnished and then coated with a thin, transparent yellow lacquer. This process is said to imitate genuine leaf-gilding very closely, and it may be that it was used throughout, with the possible exception of the halos and certain prominent metallic objects in the design. The gold ground is purposely allowed to show through in various places, to produce the effect of high lights. Some contours were lightly incised in the gold ground—probably following a pattern—before the colors were laid on. Attention may be called to a linguistic point. In the inscription on the medallion the word ἀνιστορήθη is used in the uncommon sense of "was painted" or "was ordered." In the sense of "order or commission" a work of art the verb occurs in Ps. Codinus, p. 219, 17, ed. Preger.

² The latter part of the name Charalampos is erased, and there may have been a few letters following the *Ioannes*. Under the name Charalampos there are the letters εναο, followed by several illegible traces. No satisfactory explanation of them has occurred to me.



FIG. 1.—IKON OF ST. DEMETRIUS, ANN ARBOR, IN POSSESSION OF JAMES INGLIS

horseback, piercing with his spear an unhorsed enemy, who, according to a common convention, is much smaller than the heroic saint. Below is a predella-like division — not, however, separated from the picture above by a special frame—in which are nine smaller pictures, in roundel or medallion form, which show scenes from the life of St. Demetrius, and his final martyrdom. The interstices between these roundels are filled by elaborate acanthus volutes, among which there are little Cupid-musicians playing upon *cornetti curvi*. The painter has colored the cupids red,³ so that they are almost concealed in the design, and cannot be easily made out in a photograph.

The ikon is not, of course, a work of much artistic merit. One notices at once the hobby-horse like appearance of the charger, his human eye, and the ill-drawn head of the enemy's horse, but such lapses as these are observed in the work of abler artists of the Renaissance. More serious defects are the bad management of Demetrius' right hand, the puppet-like attitudes and gestures of the figures in the roundels, and the unfortunate fancy of making the volutes of foliage issue from the mouth of a grotesque mask. The broad faces and low foreheads of almost all the figures suggest Balkan, rather than Greek, types, which is natural enough in a picture painted in Jugoslavia in modern times. It is not to be forgotten, however, that youthful faces are sometimes drawn fairly round, even in good early Byzantine work, and in our picture the painter has made an exception of the ecclesiastical personage in the upper left-hand corner, whose longer face and lined forehead mark the ascetic. The minute details of the picture are of considerable interest, particularly the painter's use of grotesque faces, which appear on the pauldrons or shoulder-guards, the sword-hilt and the quiver of Demetrius, and upon the shields of both the saint and the enemy. In the last three grotesques the tongue is protruded, as if taunting an adversary.

The pattern of acanthus volutes and Cupid-musicians which frames the medallion-pictures below is probably due to Italian influence; at any rate, there is a strikingly similar use of these two motives in an Italian engraving of the late fifteenth century published by A. M. Hind.⁴

Apart from the general plan and the episodes depicted on the ikon, the Byzantine tradition is preserved in the stocky, small-headed Arab type of horse, and also in the architectural features that appear in the roundels. These arches, domes, and cupolas may be to some extent a legacy from earlier painting, but they may also represent a Byzantine architectural tradition in Balkan towns.

In passing from these general comments to an examination of the episodes depicted, it becomes necessary to consider the legend of St. Demetrius, which has been made the subject of an admirable chapter by the great authority in hagiography, H. Delehaye.⁵ This scholar shows that there were several stages in the forma-

³ Probably because red is the conventional color for cherubs, such as are seen in the upper right-hand corner of the ikon.

⁴ *Early Italian Engraving* ii, 1938, pl. 142; description in i, 91.

⁵ Delehaye, *Légendes grecques des saints militaires*, Paris, 1909, pp. 103-109 (with an unpublished life of the early type, pp. 259-263). Pioneer work had been done by Cornelius Bye (Bije), who determined the chronological order and the relations of the different forms of the legend (*Acta Sanctorum*, Oct. IV, 50-87; also in Migne, *P.G.* cxvi, 1081-1168).

tion of the legend, as new episodes were added from time to time to an original brief and simple story. In view of the late date of the picture, we should expect it to illustrate a fully developed form of the legend, in particular, the account of the life and martyrdom of Demetrius given by Symeon Metaphrastes, who compiled in the tenth century what became the standard martyrology of the eastern church.⁶ Yet, as we shall see later, the agreement with Symeon is not complete. The following bare outline of the story is based upon Symeon; for the earlier forms of the legend, Delehaye's treatment of it must be consulted.

Demetrius, a young man of good family and senatorial rank, lived in the time of the emperor Maximian (285-305 A.D.). His preaching of Christian doctrine attracted so many hearers that it came to the knowledge of Maximian, who ordered Demetrius to be brought before him. The saint boldly acknowledged his faith and his mission, whereupon the emperor threw him into prison. There two miracles occurred. First, a scorpion tried to sting Demetrius, but the saint made the sign of the cross and killed him. Later an angel appeared and placed a golden crown upon Demetrius' head, saying: "Peace to thee, champion of Christ, be strong and play the man." Meanwhile, Maximian indulged his passion for gladiatorial spectacles by preparing for a great combat, to which his favorite gladiator, Lyaeus, challenged all comers. Nestor, a young friend of Demetrius, accepted the challenge, visited Demetrius in his prison, received the saint's blessing, and won the contest, killing Lyaeus.⁷ The emperor was so enraged by the defeat of his favorite that he ordered Nestor to be beheaded, and upon hearing that Demetrius' blessing had enabled Nestor to overcome his adversary, he ordered Demetrius to be "killed with spears"—bare words, which were variously interpreted in pictorial representations of the scene. Lupus, the servant of Demetrius, dipped the saint's scarf and ring in his blood and preserved them, to work many miracles later; but he also suffered for his loyalty to his master and was beheaded by Maximian's orders.

Symeon continues his narrative with an account of the burial of Demetrius in a grave which was neglected and forgotten until the discovery that the place worked miracles of healing, and concludes with the translation of the miracle-working scarf of the martyr to Sirmium, where a new church was built for it.⁸

Other narrators have recorded at tedious length many miracles worked by St. Demetrius after the establishment of his church and his cult at Thessalonica. Particularly famous is the story that when the city was threatened by Slav invaders, the saint in person attacked and dispersed the barbarians.⁹ It appears to be these

⁶ *Acta Sanctorum* Oct. IV, 96 ff.; Migne, *P.G.* cxvi, 1185-1201.

⁷ Nestor's connection with Demetrius is strange, and it was not a part of the original legend, as an inspection of the earliest forms of it, such as that of Photius *Bibl.* 255, clearly shows. There one finds no hint of any connection between Nestor and Demetrius, and Nestor is not even called a Christian. The victory of Nestor irritates Maximian, and thinking that the appearance of Demetrius just before the games had brought bad luck, the tyrant orders Demetrius to be put to death. Nestor is merely refused the usual prize, not punished. The later narrators made no difficulty about letting Demetrius bless Nestor, despite Christian condemnation of gladiatorial contests, and by virtue of this connection, Nestor is venerated by the Eastern Church on October 27, the day after the festival of Demetrius. See Bijé's discussion of the matter in *Acta SS.* Oct. IV, 60-62.

⁸ The site of Sirmium is near Mitrovica on the Save, 38 miles west of Belgrade.

⁹ *Mirac. S. Demetrii* c. xiii, §112; *P.G.* cxvi, 1288 f.

later miracles that caused Demetrius to be regarded as a soldier-saint, for in the earliest forms of the legend he is only a young patrician, and in early works of art his costume is civil, not military.

The narrative of Symeon Metaphrastes seems to have standardized the episodes of the life of St. Demetrius and their chronological sequence, for we find both literary and artistic examples which follow Symeon more or less closely. The poet, Manuel Philes, who was active early in the fourteenth century, composed a set of epigrams for a series of pictures dealing with Demetrius, many of which evidently represented episodes recorded by Symeon,¹⁰ and the mural paintings on the walls of the metropolitan church of Mistra, the work of a fourteenth-century artist, agree closely with Symeon's narrative.

The interest of the Inglis ikon consists largely in the fact that it represents so many of the episodes of Demetrius' life, as many, I believe, as are to be found in any pictorial source, while at the same time it does not seem to depend directly upon any other series of illustrations, and its choice of incidents does not exactly duplicate any other pictorial sequence. Since it was painted in the cultural sphere of Salonika, it is necessary to consider the question whether the medallion-pictures preserve in their plan any characteristics of the frescoes in St. Demetrius' great church in Salonika, which were destroyed in the fire of 1917, and most unfortunately seem never to have been copied or reproduced in any way.

The main part of the ikon represents an act of the glorified Demetrius, while the medallions have to do with the incidents of his life and his martyrdom; we therefore examine the medallions first, and in the following discussion they are numbered according to their chronological order from I to IX. The arrangement of the medallions conforms to the chronological order in the upper row only, left to right, I-IV. The position of numbers V-VIII will be indicated as each is described. Number IX, which depicts the martyrdom, and is slightly larger than the others, occupies a central position. Each of these medallions has a cursive inscription in modern Greek of the demotic type, with several errors of one kind or other.

I. The Emperor orders Demetrius arrested (fig. 2). Maximian is seated at the left on a golden throne, under a canopy; three soldiers and the saint (in military dress) stand before him. The painter's title is "The Emperor Maximian orders him to be brought before him, that he may see the truth all alone"—that is, in an interview, face to face. But in spite of the title, the painter has anticipated the execution of the emperor's command, for the saint, marked by his halo, is present, behind the second of the three soldiers. Thus this scene becomes a mere variant of III. The artist has been at some pains to indicate by gilding the splendor of the King's costume, throne and canopy, and the architectural details are interesting.

II. The arrest (fig. 3). Demetrius, in military costume, is seated on a low platform at the right; three soldiers who have come to arrest him are standing near his left side. In front, at the left, is a congregation (17 persons), who sit listening to the teaching of Demetrius. The scene appears to be a courtyard, but the columns,

¹⁰ Manuelis Philae *Carmina*, ed. E. Miller ii, 1855, 301-306 (Nos. LXXII-LXXXIX). Other epigrams of this author, describing some scenes included in the series just cited, will be found in i, 134 (CCLXXII), 136 (CCLXXXVIII-CCLXXX).



FIG. 2.—MEDALLION I: MAXIMIAN ORDERS ST. DEMETRIUS TO BE BROUGHT BEFORE HIM

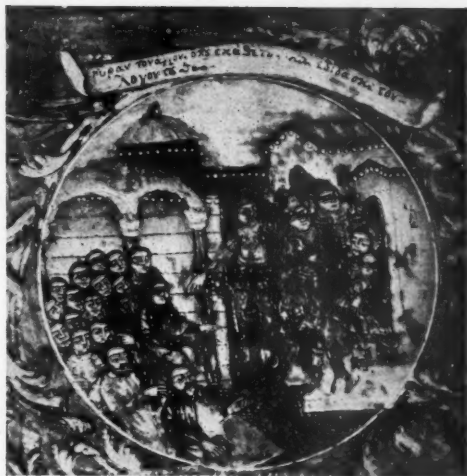


FIG. 3.—MEDALLION II: ARREST OF ST. DEMETRIUS



FIG. 4.—MEDALLION III: ST. DEMETRIUS BEFORE MAXIMIAN



FIG. 5.—MEDALLION IV: ST. DEMETRIUS TAKEN TO PRISON

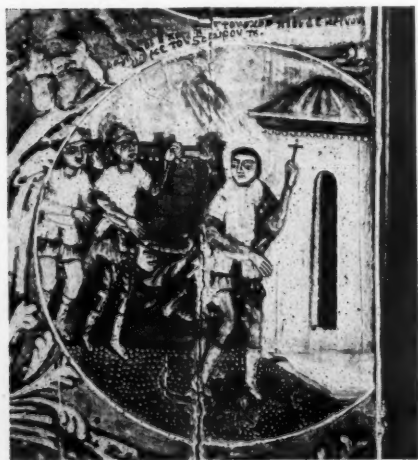


FIG. 6.—MEDALLION V: ST. DEMETRIUS AND THE SCORPION



FIG. 7.—MEDALLION VI: ST. DEMETRIUS CROWNED BY AN ANGEL

arches and domed roof of a building behind the congregation may be meant to indicate that they are actually indoors.

III. Demetrius before Maximian (fig. 4). The emperor is seated at the right, with an attendant behind him, under a dome, partly cut away, which is doubtless intended to suggest that the whole scene is within the palace. Before him are Demetrius and two soldiers, all three standing and gesticulating in a manner exactly like that of marionettes.

IV. Demetrius taken to prison (fig. 5). Three soldiers armed with spears stand with the saint before the door of the prison. Two lantern-turrets belonging to neighboring buildings are to be seen over the courtyard wall and the roof of the prison.

V. The miracle of the scorpion (lower row, extreme right). Demetrius in the court of the prison holds a small cross in his left hand as he stands upon a huge scorpion (fig. 6). (The artist has substituted the actual cross for the motions involved in making the sign of the cross). At the left, behind him, two soldier guards look on in astonishment. Red rays of light stretch down from heaven towards the saint's halo.

VI. The crown from heaven (lower row, second from right). Demetrius stands with hands raised, while a crown is placed upon his head by an angel, who kneels upon a cloud (fig. 7); his left hand places the crown, while the right holds a scroll or banner inscribed: "Hail Demetrius, soldier of the Christ." At the left of Demetrius are two soldiers in puppet-like postures of astonishment. In the three scenes in the prison-yard, IV, V, VI, the detail of the prison-building is in a different architectural design in each instance, but the building as shown in IX is like the representation seen in IV.

VII. The victory of Nestor (lower row, extreme left). Two scenes: at the upper left, Demetrius, kneeling at the door of a cell that appears to be barely large enough for his body, lays a cross upon the breast of Nestor (again the painter's version of signing with the cross). Below, Nestor kills Lyaeus in single combat, in the presence of the emperor, seated on his throne at the right with an attendant standing beside him (fig. 8).

VIII. The execution of Nestor (lower row, second from left). The emperor, in robes of state, has just struck off the head of Nestor, who was kneeling before him. An attendant stands behind the emperor, apparently pointing to the head of Nestor. The royal throne and canopy are shown at the left. The legend, it is scarcely necessary to say, does not represent Maximian as beheading Nestor with his own hand (fig. 9).

IX. The martyrdom of St. Demetrius (center). Two scenes. Demetrius stands in the center; behind him are two soldiers, one of whom is holding the saint, one hand grasping his body under the right arm, the other holding Demetrius' left hand. A third soldier at the left stabs Demetrius in the right side with a spear, and the saint seems to be elevating his right arm in order that the thrust of the spear at his right side may not be obstructed. At the upper left, is a red cloud through which a hand and arm project; rays of light extend from this hand to the body of Demetrius. In the lower part of the field, the servant Lupus is kneeling and catching the martyr's blood upon his scarf. The painting has darkened and probably been somewhat damaged in this area, but a faint gleam of gold, visible in front of Lupus,



FIG. 8.—MEDALLION VII: THE VISIT OF NESTOR TO ST. DEMETRIUS AND THE COMBAT OF NESTOR AND LYAEUS

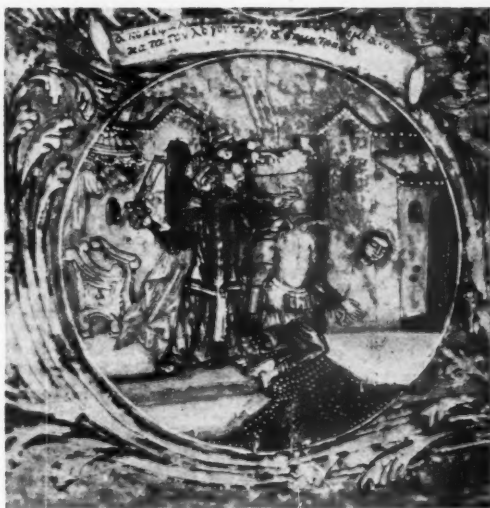


FIG. 9.—EXECUTION OF NESTOR



FIG. 11.—PENDANT RELIQUARY IN BROWN GLASS PASTE: ST. DEMETRIUS, WASHINGTON, DUMBARTON OAKS COLLECTION

may be the ring of Demetrius, which, along with the scarf, Lupus is said to have touched with the blood of the martyr and preserved. In the second scene, at the right of the medallion, an executioner beheads the faithful Lupus (fig. 10).

About the relation of the medallion-pictures to other representations of the life and martyrdom of Demetrius, there is much to be learned from an admirable article by Andreas Xyngopoulos, in which he describes a silver-gilt reliquary casket belonging to the monastery of Vatopedi, on Mount Athos.¹¹ The casket is adorned with repoussé designs from the life of St. Demetrius and was probably made in the middle of the twelfth century. In publishing this object, it was not the purpose of Mr. Xyngopoulos to write a systematic study of the iconography of this saint, but his contributions to the subject are very important. I am indebted to him for some information derived from sources not accessible to me, and can suggest corrections in only one or two details. In view of the wide scope of Xyngopoulos' study, I refer to it frequently, and confine myself to the resemblances and differences between the Inglis medallion-pictures and the other sources which he has discussed.

There are two sequences of scenes from the life of St. Demetrius that have been adequately published, the casket of the Vatopedi monastery, and the frescoes of the Metropolis of Mistra.¹² We know also that there was a series of frescoes representing some of the same subjects in the church of St. Demetrius in Salonika. When Papageorgios saw the latter in 1907, shortly after a coat of whitewash had been removed, they were almost obliterated, and in the fire of 1917 they were destroyed.¹³ Since no copy had been made, or even a detailed description of the remains, there is nothing to indicate the subjects of the paintings except the inscriptions that ran along in a narrow band under them.¹⁴ Papageorgios had copied these inscriptions with much difficulty, as he says, and probably not without some pardonable errors.¹⁵ Even when the text is not in doubt, we are uncertain just what actions a given title includes. For example, the first title, "The officers conducting St. Demetrius to the impious [emperor]," ¹⁶ may well have represented the arrest of the saint while teaching his congregation, which would correspond to our Medallion II. The second, "The king commanded the saint to be confined in the vaults of the bath-furnaces," would correspond to our III. The third, "St. Demetrius in prison," might correspond to our V and VI, but it is not safe to assume that the painter dealt with either the incident of the scorpion or the crown given from heaven. The fourth title undoubtedly described a scene like the lower part of our VII.¹⁷ The fifth, "The king ordering the execution of St. Demetrius," must, in order to make its meaning clear, have been closely connected with the following, "The saint is martyred at the command of the King" (our IX). Finally, the mutilated closing words of the inscription probably refer to a picture of the burial of the saint.

¹¹ 'Ep. 1936, pp. 101-136. Hereafter, this article will be cited by the author's name and a page-number.

¹² Gabriel Millet, *Monuments byzantins de Mistra*, Paris, 1910, pls. 68-70.

¹³ P. N. Papageorgios in *BZ.* xvii, 1908, pp. 321-381, esp. 324-325, 335.

¹⁴ Xyngopoulos, p. 126.

¹⁵ Papageorgios, p. 367 and pl. XI.

¹⁶ Here I venture to suggest ἀνοσίῳ for the meaningless ἀπεσιῳ of Papageorgios' copy.

¹⁷ I cannot think that Papageorgios (p. 367) is right in proposing φεύγων for an injured word in the title of this scene. A picture representing the emperor leaving the scene of the combat has no place in the iconographic tradition. I suspect that εἰσορῶν would fit the traces accurately, especially if the iota was combined with epsilon, depending from the middle stroke.



FIG. 10.—MEDALLION IX: MARTYRDOM OF ST. DEMETRIUS AND EXECUTION OF LUPUS.

The Vatopedi casket, which should be examined in Xyngopoulos' article, with the excellent supplementary plate B, contains seven scenes, as follows: Demetrius in prison; Demetrius killing the scorpion (cf. our V); Nestor visiting Demetrius (cf. VII); Nestor killing Lyaeus (cf. VII); the martyrdom of Demetrius (cf. IX); the healing of Marianus; the expulsion of the Slavs by the glorified St. Demetrius. The last two subjects fall outside the series of incidents related by Symeon, and belong to the later "Miracles" of the saint. The following points are worthy of note for comparison with the other representations. The scene "Demetrius in prison" is separate from the miracle of the scorpion, but shows a certain affinity to our No. VI, "the crown from heaven"; for a hand in the position of benediction is shown in the upper right-hand corner, and is evidently intended as a manifestation of divine approval. In the scene of the slaying of Lyaeus, Nestor has struck him down with a spear, not a sword or dagger. In the martyrdom, two soldiers are striking Demetrius with their spears. In drawing the two scenes where Demetrius makes the sign of the cross, i.e. when he destroys the scorpion and when he blesses Nestor, the artist contents himself with a gesture of the hand and does not resort to the crude device of an actual cross such as we see on the Inglis ikon. Finally, in all the scenes of the casket except that of the expulsion of the Slavs, where he is, of course, a soldier-saint, Demetrius wears a civil, not a military costume.

The important series of paintings in the Metropolis of Mistra comes, on the whole, nearest to the subjects treated on the Inglis ikon, and yet there are interesting differences. The Mistra frescoes are as follows:

1) Demetrius teaching (our II); 2) Demetrius before Maximian (our III); 3) Demetrius in prison, destroying the scorpion and receiving the crown from Heaven (V and VI combined); 4) Nestor visiting Demetrius and receiving his blessing (part of our VII); 5) Nestor wrestling with Lyaeus; 6) Lyaeus slain by Nestor (with a spear; cf. our VII, lower part); 7) Nestor before Maximian; 8) Martyrdom of Nestor (VIII); 9) Martyrdom of Demetrius (IX); 10) Burial of Demetrius; 11) a damaged picture at the end of the series, which, because of its position, is thought to represent a miracle worked after the death of St. Demetrius.¹⁸ In all the Mistra frescoes, St. Demetrius wears a civil costume.

The following points should be observed. Nestor kills Lyaeus with a spear, not a sword; so also on the Vatopedi casket. Demetrius is killed by four soldiers who rush upon him from his left side as he is seated praying. More important is the fact that a special picture is concerned with wrestling between Nestor and Lyaeus. Now in the narrative of Symeon, Lyaeus challenges all comers to wrestle with him, but in the actual fight Nestor engages at once with his sword (*akinakes*) and strikes a fatal blow.¹⁹ The Mistra painter seems either to have interpreted the narrative of Symeon as meaning that there were two stages in the combat, wrestling first, then sword-

¹⁸ Xyngopoulos (p. 127, n. 1) suggests that the miracle was the healing of Marianus, which is represented on the Vatopedi casket, and is related in the first chapter of the *Miracles*. But since the Mistra painter adheres so closely to Symeon, it seems more likely that the healing of Leontius would have been chosen as a typical miracle. The story is told in Symeon, ch. 2, 21-22 (P.G. cxvi, 1199).

¹⁹ Symeon, ch. 2, 12 and 16 (P.G. cxvi, 1192-3, 1196). He completely ignores the inconsistency in his narrative, which may result from the combination of two different traditions. As his story now stands, Nestor's use of the *akinakes* looks almost like foul play.

fighting, or else to have followed a more explicit tradition to that effect. Xyngopoulos shows that the tradition of the wrestling was carried on by some later artists.²⁰

From the foregoing sequences of pictures dealing with Demetrius, the Inglis ikon differs in several points. It is fuller in the representation of the earlier incidents, even to the point of redundancy; for, as we have seen, Number I could have been spared, and by the anachronistic introduction of Demetrius into the scene where Maximian orders his arrest, it is made to cover some of the ground of III. Further, IV, in which Demetrius is led to prison, is obviously less important than the following incidents. The ikon has separate scenes for the scorpion incident (V) and the sending of the crown (VI), whereas the two are combined by the Mistra painter.²¹ On the other hand, the ikon in Medallion VII awkwardly combines the visit of Nestor with the combat before Maximian. It differs from both the Vatopedi casket and the Mistra frescoes in making Nestor kill his enemy with a sword, as in the written sources; but stranger still, Nestor has, and is actually using, two weapons, either two swords, or a sword and a dagger. With a sword in his left hand he stabs Lyaeus in the stomach, while with another sword, or dagger, in his right he aims a blow at his adversary's breast over his raised left arm. Did the painter mean that Nestor had two weapons to his opponent's one, or that Nestor wrested Lyaeus' sword from him and used it against him? Unfortunately, the small size of the picture and the darkening of certain colors make several details very doubtful. Lyaeus seems to be dropping upon his right knee, and something resembling a sword lies on the ground beside his knee; further, his right hand is extended, open, but relaxed, as if the shock of a wound had forced him to drop his sword. Perhaps it is most likely that both combatants were armed with sword and dagger, although Lyaeus' dagger is not shown; otherwise the Christian champion would be taking an unfair advantage. It is possible that a careful cleaning of the ikon might settle the question. However that may be, the ikon gives no indication that the painter knew of any wrestling between the two combatants; thus he seems either to have ignored the language of the challenge recorded by Symeon, or else to have followed a different and simpler tradition, like that of the Vatican MS 821.

In another particular, also, the painter seems to have followed an old tradition, not however traceable in the early lives. The anonymous lives and that of Symeon Metaphrastes give almost no details of the actual slaying of St. Demetrius. But the miniature in the *Menologium* of Basil represents the saint as lifting his right arm in a manner that exposes his right side to the spear of his executioner—a single soldier who rushes upon him from the left of the picture.²² On the Vatopedi casket, where there are two spearmen, the saint's right arm is slightly raised, but there it is because his hands are joined in prayer and held before his breast, and in the Mistra fresco, also, Demetrius is praying while four soldiers transfix him with their spears, approaching from the right of the picture. In the Inglis ikon a single soldier delivers

²⁰ Xyngopoulos, p. 120.

²¹ It is rather strange that the painter of the ikon departs from the tradition, in which both Symeon and Vat. 821 agree, about the words spoken by the angel who brings the crown. The banner held by the angel of the ikon reads: "Hail, Demetrius, soldier of the Christ;" in the other sources the greeting is "Peace to thee, champion of Christ; be strong and play the man."

²² *Il Menologio di Basilio secondo* (Codices Vaticani viii) II, pl. 139.

the actual thrust; two others hold Demetrius, but in such a manner that his right arm is free, and he raises it as if purposely to remove any obstacle from the path of the fatal blow. Symeon and later writers of encomiums on St. Demetrius mention the circumstance that he was wounded, like his Master, by a spear-thrust in the right side.²³ Finally, in the ikon, Demetrius always wears the military costume, undoubtedly because at its late date the miracles of the soldier-patron of Salonika had made the military aspect of the saint predominant.

To sum up: despite the fact that the ikon may be considered a product of the cultural sphere of Salonika, there is nothing definite to suggest that the medallion scenes owe anything to the lost frescoes of the church of St. Demetrius there. Some of the incidents are the same, but the series in the church seems to have been shorter, and no information about the details is available. The authority of Symeon's narrative was so great that one might naturally fix upon it as a chief source for the ikon; and yet, since the ikon-painter does not use the wrestling scene, he has at least not followed Symeon slavishly, and may have used a pre-Symeonic narrative. The minute technique of the medallions even lends some probability to the conjecture that the painter's principal source may have been a life of Demetrius in some manuscript liberally illustrated with miniatures depicting incidents of the saint's mission and martyrdom. It seems possible that the series of eighteen epigrams of Manuel Philes, describing a longer series of incidents and miracles than any known pictorial cycle presents, may have been intended for an illustrated manuscript, rather than for a series of mosaics or paintings.

The main design of the ikon requires less discussion. Here Demetrius is a warrior-saint, an aspect of his wondrous powers which seems to have become increasingly important since the time when popular belief ascribed the rout of the Slavs before Thessalonica in 586 to his miraculous intervention.²⁴ The design on the bottom of the Vatopedi casket is thought to represent this famous defeat of the Slavs. St. Demetrius, in coat of mail and carrying a shield, is there represented striking down from the city wall with a long lance at the Slavs, who are starting to flee on their horses. As time went on, the military aspect of the saint became predominant in art, and, probably under the influence of other cavalier saints, Demetrius came to be represented as a horseman. It should not be forgotten that the "Rider Hero" ²⁵ of ancient Thrace undoubtedly contributed something to the development of the type of the victorious horseman-saint who transfixes an enemy, the spirit of evil, a dragon, etc.; and it was natural that the soldier patron of a great Macedonian city should carry on some features of the pagan cavalier-deity.

In the Inglis ikon, painted in the eighteenth century, we should expect the prostrate enemy of Demetrius to represent, at least to the unlettered man, the foe of Greek and Balkan Christians, namely the Turk. The clergy might remember that Demetrius was the champion of Salonika against the Slavs, or might simply accept such a picture as representing the downfall of any enemy of Christianity, or of evil in general. Certainly no particular person is meant.²⁶

²³ Xyngopoulos, p. 122 and notes.

²⁴ Xyngopoulos, p. 124; *Miracles*, ch. 112 (*P.G.* cxvi, 1288).

²⁵ The subject has been treated in an article by Kazarow in *RE.* (Suppl. iii, 1132-1148), where references to previous studies will be found.

²⁶ See the next note.

Attention has been called already to the painter's love of detail, and, in particular, to the grotesque decorations of the arms and armor of the combatants. Many other minor features of the work are curious and interesting, such as the saint's elaborate armament—lance and shield, scimitar, bow and quiver; one of his arrows, it will be observed, pierced the enemy's throat before he was dispatched with the lance. Noteworthy also are the decorative details of Demetrius' armor and the saddle and trappings of the horse, and the cypresses and other trees and shrubs of the mountain landscape.

In the upper right-hand corner of the picture, a divine person, apparently God the Father, appears in red clouds, which conceal the lower part of the figure. Both hands are raised in the eastern gesture of benediction. There are two pairs of cherubs (head and wings only, colored red), one below the celestial figure, the other at the left (from the spectator's point of view).

An inscription in gold at the left of the saint's halo gives his name. Close examination of his face shows that the painter at first placed the whole design lower on his board, for the outline of an earlier drawing of the eyes can be faintly discerned at the level of the cheek-bones of the present face. This change in plan explains why the halo was allowed to overlap the black border which serves as a frame for the ikon.

Last of all, we must consider the meaning of the dignified ecclesiastical personage, carrying a long rosary and a tall walking-stick, who is just emerging from a building at the extreme upper left, on the highest part of the mountain background. Identification of this person has been made easy by the help of an article by Miss Alison Frantz on "Late Byzantine Paintings in the Agora."²⁷ In this study Miss Frantz had occasion to deal with a fresco of St. Demetrius on horseback, accompanied by a small figure in ecclesiastical garb seated behind him on his horse. She showed that the presence of this little figure refers to a story told in the record of the Miracles of St. Demetrius. A certain bishop Cyprianus had been captured by barbarous Slavs. St. Demetrius appeared to him in a vision, caused his chains to fall from him, told him to follow him, and guided him to Thessalonica in safety.²⁸ The ecclesiastic in our picture is undoubtedly this Cyprianus, just leaving the place of his captivity and starting out to follow St. Demetrius. The Inglis ikon seems to follow without modification the account given in the *Miracles*, in which Cyprianus follows his guide on foot. But as Miss Frantz shows, there was a popular chap-book version in which the saint took Cyprianus upon his horse behind him. It is this popular version that is represented on the Agora fresco and on some ikons in the Byzantine Museum in

²⁷ *Hesperia* iv, 1935, pp. 442-469, esp. 458-461. There is one unfortunate error in this otherwise excellent article; the author assumes that the enemy whom the mounted Demetrius slays is the gladiator Lyaeus. But—exactly to the contrary of the statement on p. 460—it is Nestor, never Demetrius, who kills Lyaeus, as is proved by the Vatopedi casket and the Mistra paintings, not to mention the hagiographic texts. As far as I know, the enemy transfixing the mounted Demetrius is rarely identified with a definite person. A. Grabar, in his *La Peinture religieuse en Bulgarie*, describes and reproduces a fresco from a fifteenth-century church at Dragalevci, in which St. Demetrius on horseback strikes with his lance at a fallen enemy labelled *Tsar Skaloian*, from whom the saint was said to have delivered his city of Thessalonica in 1207 (p. 300 and pl. LI b). But, in general, the enemy of Demetrius is simply the traditional enemy of the community where the saint is honored, or else a personification of paganism, or of evil in general.

²⁸ *Miracles*, ch. 6, pp. 208-209 (*P.G.* cxvi, 1377-1380).

Athens, one of which Miss Frantz publishes in her article. As she points out, there is a certain incongruity in combining the saint's defeat of an enemy with the guiding of Cyprianus; but the transfixed enemy was by this time merely an attribute of the heavenly warrior, and one that the painters did not like to omit even when the combat scene was scarcely in harmony with the rest of the story depicted.

Through the courtesy of the Dumbarton Oaks Research Library in Washington, I am enabled to close this article with an interesting illustration of Demetrius as a soldier-saint. This is a pendant in the Dumbarton Oaks Collection with a half-length figure of St. Demetrius in brown glass paste, imitating cameo (fig. 11, p. 70). The work is thought to be of the twelfth or thirteenth century. The saint wears a military tunic and cuirass, and a chlamys fastened at his throat. He holds a spear in his right hand and carries a small shield decorated with a cross on his left arm. The paste is suspended from a chain with an almandine cross of earlier date. Under the larger pendant hangs a smaller one of crystal, in the form of a dove.

Pendants with representations of St. Demetrius were evidently in favor among the devout. There are two in the British Museum, one of blue paste, one of red, which, to judge by the descriptions, must resemble the Dumbarton Oaks specimen rather closely; unfortunately the catalogue gives no illustrations of them.²⁹ Manuel Philes wrote epigrams for two pendants (*encolpia*) of St. Demetrius.³⁰ Another object described by him which would have interested modern collectors was a figure of St. Demetrius—whether an intaglio or a larger carving is not made clear—executed in a stone with red veins, of which the lapidary took advantage to represent the blood flowing from the wounds of the martyr.³¹

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²⁹ O. M. Dalton, *Catalogue of Early Christian Antiquities*, Nos. 694 and 695.

³⁰ Manuel Philes, ed. Miller ii, 74, No. 32; 238, No. 233.

³¹ Manuel Philes i, 136, No. 281.

EXCAVATIONS AT MECYBERNA 1934, 1938

MECYBERNA, the port-town of Olynthos, lies at the head of the Toronaean gulf at a distance of twenty stades to the southeast of Olynthos.¹ Its site, identified by Chrysochoos and Wace,² was tested for the first time by Professor David M. Robinson in 1934 and some work of minor extent was carried out during the campaign of 1938 conducted by the Johns Hopkins University and Washington University of St. Louis.³

The location of the port-town so far east of Olynthos has caused some concern among scholars, who would have liked to place it directly to the south of that city and by the mouth of the Sandanos (Retsinikia) river which flows to the west of Olynthos.⁴ The position occupied by Mecyberna, however, is the only one possible for the establishment of a port settlement, and this can be seen easily from a survey of the area prepared by Alexander Schmidt (fig. 1). The area immediately around the mouth of Sandanos (fig. 1, S) is marshy and not suitable for the erection of a permanent settlement. To the west of the river the area is too near Potidaea for safety and comfort. To the east of the river the coast for a considerable distance continues to be filled with swamps, is flat and exposed and not suitable for habitation. Even today it is entirely deserted. The first favorable position for establishing a port-town east of the Sandanos is the location over which Mecyberna was erected (fig. 1, M). There the hills come near the shore and offer protection to a settlement. A fair anchorage is also available and furthermore at that point there exists a comfortable supply of water not to be found around the mouth of Sandanos. The location of the port at such a distance and at such an angle from the city it was destined to serve can therefore be attributed to the peculiar natural conditions existing along the coast of the Gulf of Torone.

A series of three mounds rising besides the few houses which form the modern village of Molyvopyrgho⁵ mark the ancient site. Of these the smallest (fig. 2, H) was excavated in 1928 by W. A. Heurtley⁶ and has yielded prehistoric remains ranging in date from the Early to the Late Bronze Age. Of these the most interesting are fragments of Minyan ware which were found in the filling belonging to the second period of the site. They were taken originally to indicate the Trojan origin of this ware, but are now accepted as imports from the mainland or as the work of colonists

¹ Harpokration, *Lexikon* and Suidas, s.v. Μηκύβερνα; Strabo vii, 330, fragment 29.

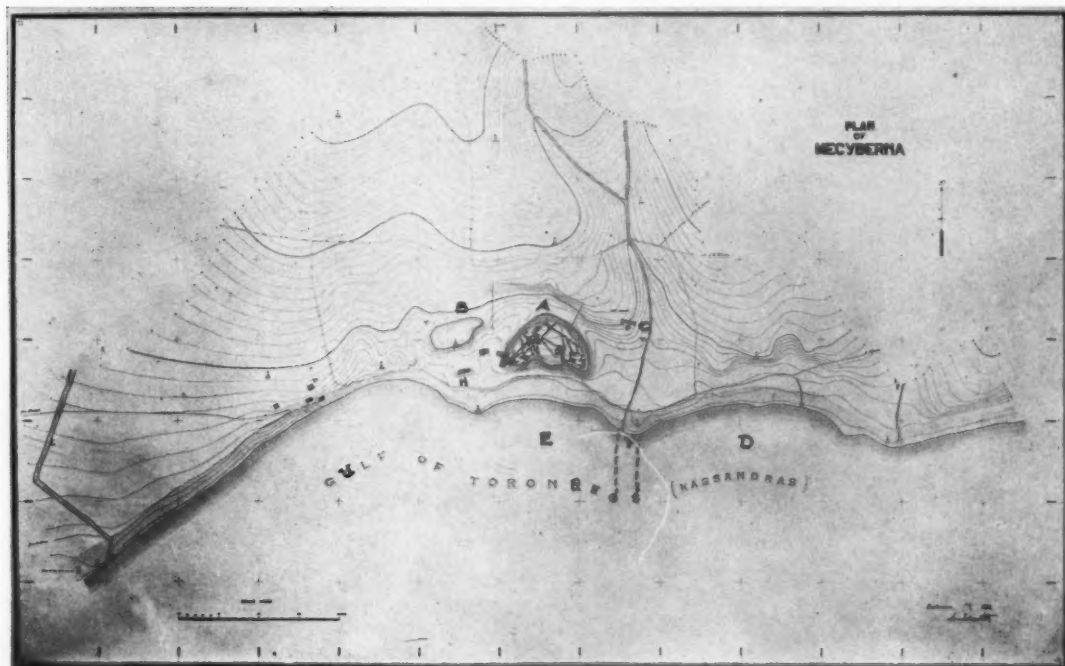
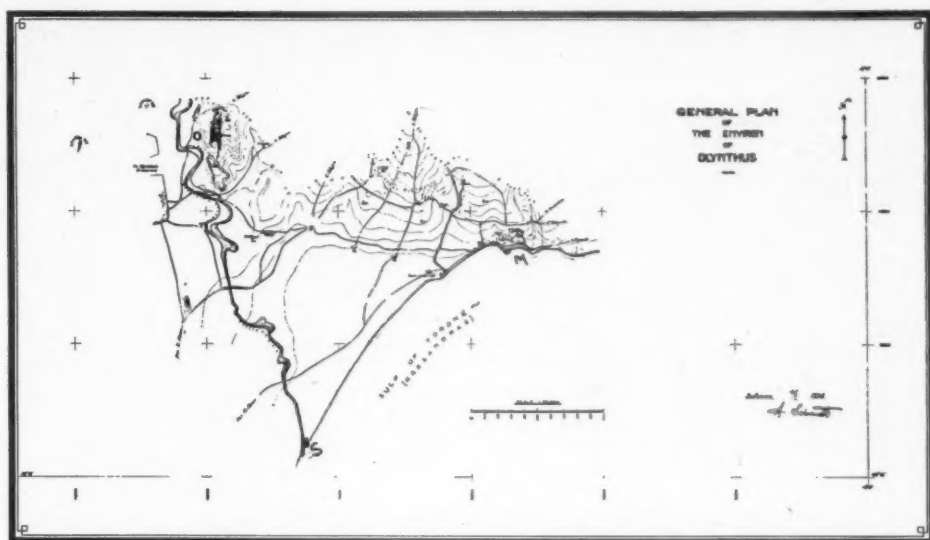
² Χρυσόχοος, *Ἐπετηρίς Παρνασσού* iii, 1899, pp. 142-51; Wace, *BSA*. xxi, 1914-1916. pp. 11 ff., figs. 1-2.

³ *AJA*. xxxix, 1935, pp. 229-31; xliii, 1939, p. 69 and pp. 304-5. To Professor Robinson I am indebted for permission to study and publish his material from Mecyberna.

⁴ Cf. Struck, *Makedonische Fahrten* i, p. 56 and map.

⁵ The name Molyvopyrgho (the lead tower) seems to have been given to the village, according to the villagers themselves, from a ruined tower which stood at its top and in the construction of which a great quantity of lead was employed. Wace, *op. cit.*, p. 15, suggested that the village "takes its name partly from the ruined tower on the top, partly from the fact that leaden sling-bullets and clamps are often found here."

⁶ *BSA*. xxix, 1927-1928, pp. 156-75; *Prehistoric Macedonia*, Cambridge, 1939, pp. 10-17, 176-77, 209-13.



from the mainland established in this district in the Middle Helladic Period. They offer most valuable evidence for the chronology of the prehistoric periods of the Chalcidice.⁷ No remains of a later age were found there and apparently the mound was not occupied in historic times. To the north of this prehistoric settlement lies our second mound "B." This was tested by Heurtley in the spring of 1928 and again by Professor Robinson in the spring of 1938. Heurtley failed to uncover any remains in his trenches and reached the conclusion that this mound was "entirely natural,"⁸ but Professor Robinson's work revealed some foundations and a good quantity of pottery, proving that the mound was occupied in historic times. The center of the city of Micyberna was located, however, in the largest heart-shaped natural mound with its extensive flat top marked by the letter "A" in our plan and lying to the east of these two smaller mounds (figs. 2, 3).

This hill comes close to the shore and dominates two rather open havens, indicated by the letters "D" and "E" (the east and west respectively), and a wide strip of sandy beach which at its widest point amounts to about 50 meters. The havens, apparently used in antiquity, formed the approach to the town and were protected by an artificial mole projecting beyond point "F" in our plan. The mole was constructed of roughly hewn blocks of stone piled on each other in a manner still practised today in the smaller Greek islands, and its remains can be seen easily below the surface of the water and could be followed to a distance of at least 25 m. from the shore line. At places the pile of stones has a width of 10 m. This mole protected the west haven from the eastern and southeastern winds and the east haven from the west wind or the Vardar, which is the strongest and most disastrous wind with which this coast is afflicted. It proved impossible to determine whether the mole projected simply from the coast in a straight line, as it is indicated on the plan (fig. 2), or whether it was made to turn and form an enclosure. It was equally impossible to determine the original height of the pile above the sea level. The havens indeed are very open, but the ships could be pulled out of the water and made secure in the broad strip of sand spreading between the foot of the hill and the water line.

The top of the main hill "A" was tested in 1934 by a series of narrow trenches averaging 80 cm. in width. Certain areas around these trenches were further cleared to reveal a larger portion of the settlement. The trenches dug, the larger areas excavated and the remains uncovered in both are indicated in Mr. Travlos' plan made

⁷ Heurtley in *BSA*, xxix, 1927-1928, pp. 182-85 maintained that the Minyan ware of Micyberna proved the Trojan origin of this ware and that it confirmed Forsdyke's view on the matter (cf. *JHS*, xxxiv, 1914, pp. 126-56). In the *Πρακτικά τῆς Ἀκαδημίας Ἀθηνῶν* 1931, pp. 106-13, I pointed out the impossibility of this view and placed the beginning of the Second Period at Micyberna at about 1700 B.C. Heurtley (*Prehistoric Macedonia*) has accepted this date (p. 126), as well as the southern origin of the ware (p. 123), although he has taken pains to point out that "Mylonas' arguments do not prove it" and that they "are not convincing." I am satisfied with the fact that my arguments were strong enough to make Heurtley change his view and accept my conclusions. The evidence on the problem obtained at Eutresis is eliminated by Heurtley, *op. cit.*, p. 123, because in "the final report on Eutresis . . . nothing is said of such priority" (of the plain over the grooved Minyan). Yet Miss Goldman, *Excavations at Eutresis in Boeotia*, Cambridge, 1931, states definitely that "incision while not found in the period of transition from Early to Middle Helladic, begins to appear at the first building level" (p. 141). With the incised she groups the grooved ware also (p. 142 and figs. 197 and 199) and her transitional is the earliest or first stage of her Middle Helladic Period (pp. 31 and 32).

⁸ *BSA*, xxix, 1927-1928, p. 156 and note 2.

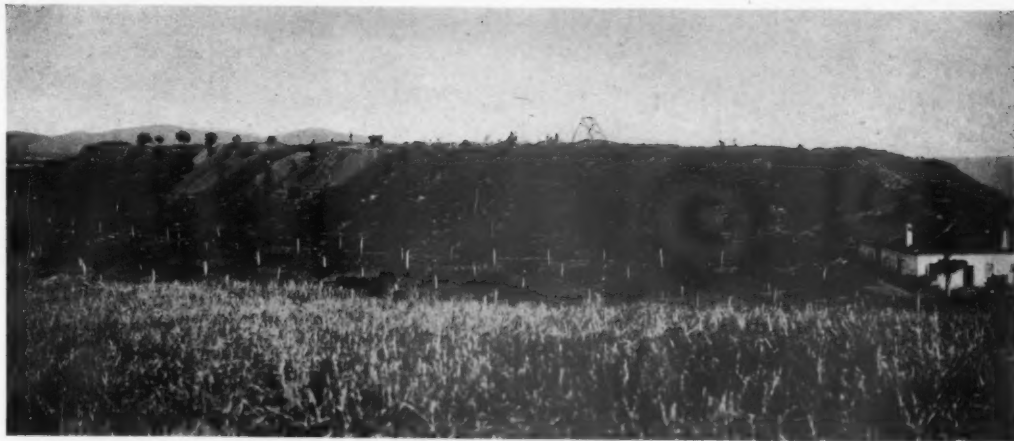


FIG. 3.—THE SITE OF MECYBERNA. HILL "A" FROM THE WEST

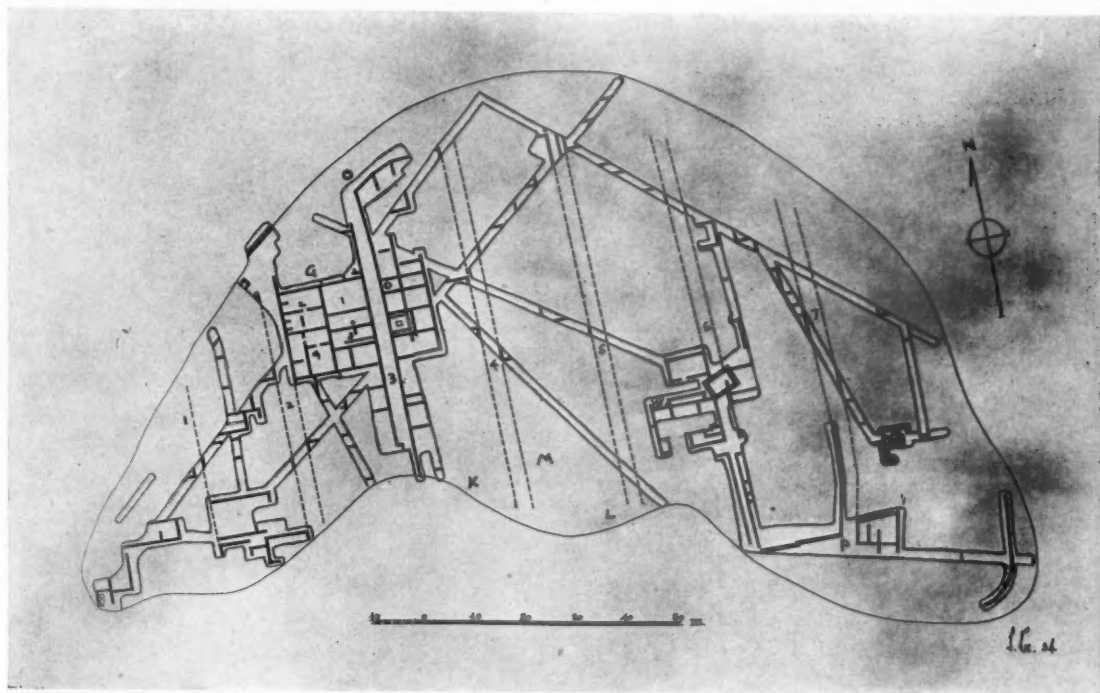


FIG. 4.—THE EXCAVATED AREA OF HILL "A"

in 1934 and reproduced in our figure 4. With a group of 10 to 12 laborers in the spring of 1938 we tested the edge of the hill at the points "K" and "L" and also excavated completely an area, about 10 by 10 m., at the section indicated by the letter "M." In all the excavated areas remains began to appear at a depth of 25 to 35 cm. below the present surface of the soil, proving that the top of Hill "A" was covered thickly with structures. Whether these were laid on a regular city planning system, such as that used at Olynthos,⁹ is not very certain, but the results obtained from the campaign of 1934 seem to indicate that the area was divided in somewhat narrow strips of land by streets running approximately from north to south laid parallel and at a distance of 18 m. from each other (fig. 4). The only indication of the existence of streets running in a different direction was revealed at the point "O" and at the point "P," where it seems as if we have the beginning of two streets running roughly from east to west. It remains therefore uncertain whether the entire city area on the top of Hill "A" was divided in long and narrow strips, or in square or oblong blocks. This verification of the plan as well as of the parallel streets remains to be accomplished in a future campaign.

Indications of seven streets running from north to south have been revealed thus far. They are unpaved, average 2.50 m. in width, and become stepped when they reach the sharply sloping sides of the hill. Their appearance is well illustrated by street no. 3, which was excavated almost to its entire length. A good part of the area to the west of street 3 towards street 2 was cleared and its remains will enable us to form some idea of the way in which the buildings were arranged in the "land strips" limited by the streets. It is apparent from the plan (fig. 4) that the structures were placed back to back with their fronts facing the parallel streets. Evidently the roofs of these structures were sloping to the streets and to the opposite direction from a common ridge pole which marked their common rear wall. The buildings are very small and we seem to have at least four distinct edifices in the area marked by the letter "G": two facing east (1 and 3) and two facing west (2 and 4). Two of these buildings, at least, are divided into four compartments, and we shall see later on that this division is rather typical of Micyberna. The foundations of these structures have survived usually to a height of 40 cm. above their floor levels (fig. 5).

Only the west half of the strip to the east of street 3 was cleared with the structures facing that street (fig. 4), but it may be permissible to assume that a similar arrangement facing street 4 will be found if the area is excavated further. The remains revealed in this narrow area belong to two separate buildings, each of which is divided into four compartments. In one of them a well was found; in the other a stone hearth similar to those discovered at Olynthos¹⁰ (fig. 6).

The ground plan of these structures and their nature was further studied in 1938, when one of them was fully excavated on the east side of street 4 and at the section indicated by the letter "M" in the plan of 1934. The remains of this structure (M) are well preserved to a considerable height (fig. 7), its openings or doorways are clearly defined and its division in compartments is very certain. In the plan of Mr. Lefakis (fig. 8) we can easily see that the structure is divided into four compart-

⁹ Cf. D. M. Robinson and J. W. Graham, *Excavations at Olynthus* viii, *The Hellenic House*, Baltimore, 1938, pp. 29-38.

¹⁰ *Ibid.*, pp. 186-88, fig. 13; pl. 52, 2.



FIG. 5.—FOUNDATIONS UNCOVERED TO THE WEST OF STREET 3. UNEXCAVATED STREET 2 IN THE FOREGROUND



FIG. 6.—FOUNDATIONS UNCOVERED TO THE EAST OF STREET 3. "A," STONE HEARTH



FIG. 7.—REMAINS OF BUILDING "M"

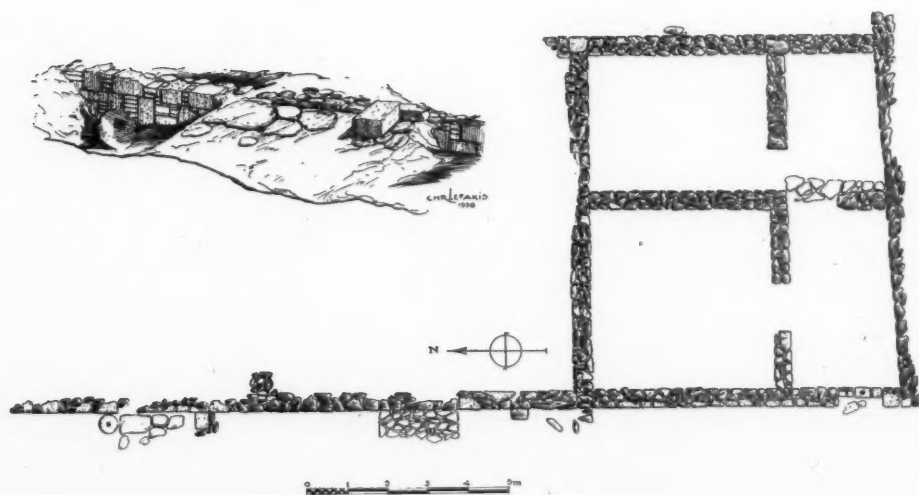


FIG. 8.—PLAN OF HOUSE "M"

ments, consisting of two larger and almost square rooms opening from two smaller and narrower rooms. The floors in every case are of packed earth and are at a lower level than that of the street. Owing to this difference in levels, the stone foundation wall was carried across the door opening to act as a threshold and as a retaining wall to the filling of the street. This arrangement was also noticed in the wall construction of the structures along street 3 and perhaps it will explain the lack of apparent door openings in the various compartments of the buildings at Mecyberna.¹¹ All four compartments were found filled with terracotta roof tiles of the common long and narrow tunnel variety, proving that the structure was roofed over entirely. Apparently it was ventilated and lighted by means of "ὀπαῖαι κεραμίδες," fragments of which were found in the débris of the two inner rooms of the structure.¹²

The foundation bearing the façade of the structure was built of cut flat stones, large and small in size, carefully laid in an intricate pattern. This foundation was constructed in the same manner to a considerable length and apparently served for the façades of the buildings which were erected on the east side of street 4 (fig. 8). At a distance of 3 m. from the north wall of house "M," the doorway of another building was uncovered and beyond that the door opening of a third edifice. From these door openings and the beginnings of the partition walls uncovered, it becomes apparent that to the north of building "M" we have two more buildings of the same width as that of "M." Furthermore, if we add a structure of similar dimensions to those of "M" beyond its rear wall, we will fill the entire width of the strip limited by streets 4 and 5. The apparent conclusion is that the buildings occupying this strip of land measured approximately 9 by 8 m. and were divided into smaller compartments, perhaps four. The same small dimensions are exhibited by the structures uncovered in 1934 around street 3. It is interesting to remark that these dimensions are almost equal to half those used as a rule for the houses uncovered at Olynthos. No evidence was uncovered as yet indicating the existence of a second story in any of the buildings of Mecyberna, which by their remains are proved to have served as houses. These houses, of the simplest type, with very few rooms and without any pretensions, contrast very sharply with those excavated at Olynthos, and this contrast will be difficult to explain. The principle of the grouping of rooms about an open court, always present at Olynthos, apparently is scarcely employed, if at all, at Mecyberna.¹³ The drainage alleys, so prominent at Olynthos, are entirely missing at Mecyberna¹⁴ and differences exist even in the details of construction. The walls of the houses at Mecyberna as a rule are not covered with plaster stucco

¹¹ The same could be maintained for similar instances in the houses of Olynthos. This use of the foundation for a threshold is a very old arrangement. We find it for the first time, to my knowledge, in the Early Helladic Period. Cf. Mylonas, "Excavations at Hagios Kosmas," *AJA.* xxxviii, 1934, p. 260.

¹² Such tiles were also found at Olynthos. Cf. Robinson-Mylonas in *AJA.* xliii, 1939, p. 54.

¹³ Thus far not a single example of a house with a court has been uncovered at Mecyberna.

¹⁴ It is evident from the plans that they were not necessary at Mecyberna. The streets apparently were used for drainage. The houses of Mecyberna in style and in construction are nearer to those uncovered on the southern hill of Olynthos. Perhaps the limited space necessitated the crowding of structures at Mecyberna, as it did at Athens. It seems probable that at Olynthos only when they felt secure in the increased strength of their city, and when they extended the city area to include the adjacent hills (north and east spur) did they begin to build larger and more spacious houses.

(only two fragments of such plaster were found in the entire area) and only in one instance was the Olynthian "cement" employed to pave one of the rooms. This difference becomes more striking when we consider that the finds made in the simple houses of Meczyberna are as numerous and as valuable as those from the elaborate houses of Olynthos.

The center of the town of Meczyberna, as revealed on the flat top of our hill "A," must have presented a very crowded appearance when all its buildings were standing, and its remains can help us to visualize the cramped conditions which are reported to have existed at Athens during the Classical period. Its houses were certainly "εὐτελείς" and could be called "οἰκίδια"; its streets could be blocked by doors swinging outward and the hill itself could be called a Pnyx, "διὰ τὴν συνοίκησιν πυκνουμένην εἶναι."¹⁵ Certainly some of its rich inhabitants, like those of Athens, must have had their spacious homes in the surrounding country and perhaps at Olynthos itself.

Remains of an earlier building period were found below the foundations of the houses discussed (figs. 5, 6), but they are so fragmentary that they do not permit definite conclusions as to their plans.¹⁶ They were found, however, associated with black-figured and red-figured ware of the Early Archaic period. These vases, along with coins and lamps uncovered, will place the earlier structures in the Pre-Persian Period. In many parts of the hill extensive layers of ashes were found associated with the earlier remains and these may indicate that the earlier settlement was destroyed by fire and perhaps by the retreating Persian army in 479 B.C. The settlement, the remains of which we have discussed, seems to be contemporary with the buildings uncovered on the north hill at Olynthos. Apparently it was not destroyed by Philip, even though it was occupied by him before 348 B.C.,¹⁷ and continued to be inhabited even after his death. On the basis of the coins found at the site in 1934, Robinson and Clement have concluded that Meczyberna "remained inhabited until the founding of Cassandrea and then it was depopulated in favor of its new large neighbor."¹⁸ This conclusion is substantiated by the results of the work carried out at the site in 1938. The hill remained uninhabited until modern times, when a "kastro" or "pyrghos" (castle or tower) was built by the Turks at its northeast corner to provide shelter to a Turkish garrison. The "kastro" was destroyed in 1912, after the occupation of the area by the Greek army.

The portable objects uncovered at Meczyberna are similar in every respect to those found at Olynthos. Perhaps the most numerous are the coins. In 1934, 213 well preserved ancient coins were found. Of these 41 date before 348 B.C., 77 belong to the reign of Philip II, 92 to the period from Alexander III to Cassander, and only 3 to the years after Cassander.¹⁹ In the very short campaign of 1938, 32 coins were found and of these 9 date before 348, 11 belong to the reign of Philip II, 12 to the period of Alexander III to Cassander, and none to a later period. Vases and terracottas come next in quantity and importance. The vases include black-figured,

¹⁵ Harpocraton, *Lexikon*, s.v. πυκνός.

¹⁶ A full discussion will appear in the final publication of the material.

¹⁷ Diodorus xvi, 53.

¹⁸ D. M. Robinson and P. A. Clement, *Excavations at Olynthus ix, The Chalcidic Mint and the Excavation Coins found in 1928-1934*, Baltimore, 1938, p. 374.

¹⁹ *Ibid.*, p. 373.

red-figured, plain and stamped ware.²⁰ In both campaigns a number of terracottas were found in the buildings, representing every type discovered at Olynthos. Perhaps the most interesting is a "Kourotrophos," discovered in 1938, perfectly preserved and standing to a height of 10 cm. A good many lamps and the regular quota of pointed amphorae and pithoi were also found, as well as a variety of loom weights, sling bullets,²¹ arrowheads, fish-hooks, beads and rings. Some of the loom weights were made of lead.

It will prove very interesting to clear the entire area of this flat-topped hill and to uncover completely its remains. This will be done we hope in a future campaign. Until then all definite conclusions on the site of Mecyberna and of its problems have to be withheld. But what has been found and what remains to be found at that site will prove of great consequence as comparative material and will supplement the evidence uncovered at Olynthos.

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²⁰ Cf. Robinson, *AJA.* xxxix, 1935, pp. 229-231, fig. 30. Wace, *op. cit.*, p. 15, has recorded the rumour ("the inhabitants say") "that on a vase fragment found here was inscribed MHKYBEPNA."

²¹ Some of these bullets bear the name of Philip stamped on them; the inscription ΑΘΕΝΑΙΩΝ is found in a few instances. Cf. Robinson, *op. cit.*, p. 231.

**FORTY-FOURTH GENERAL MEETING OF
THE ARCHAEOLOGICAL INSTITUTE OF AMERICA
SUMMARIES OF PAPERS SUBMITTED BY THE AUTHORS**

A GOLD AND SILVER WREATH AT VASSAR: ROBERT SCRANTON, Vassar College.

This wreath, composed of small silver leaves interspersed with larger gold leaves, is of interest partly for certain technical features, but especially because of the problem of its significance. In spite of various objections and attractive, though improbable alternatives, the silver leaves seem certainly to represent box, so that the wreath constitutes a rare bit of evidence for ancient funerary symbolism.

OBSERVATIONS ON SEVENTH-CENTURY SCULPTURE: A. ROBINSON, JR., Brown University.

One of the most important revolutions in European history, and certainly the most decisive in ancient Greek history, occurred about 700 B.C. For several centuries before this time the Greeks had lived in a simple and isolated society, ruled by aristocracies. But then, suddenly, new forces burst upon their world. The invention of coinage, for example, and its introduction into an agrarian society, created a new form of wealth, independent of land, and constituted a threat to the power of the nobles. The concomitant rapid rise of industry brought into existence a proletarian class, while the growth of the hoplite force meant that these middle-class footsoldiers would not be content until they, too, had a share in the government.

Unrest, then, was typical of Greece in 700 B.C., and the masses, who had never heard the word "democracy," destroyed the hated system of aristocracy by rallying round a leader. Contrasting the experience of France and Germany in the eighteenth century, we may say that the masses are often helpless before many nobles, that democracy can be more readily won if the targets are first reduced, so to speak, to a single ruler. Tyranny, as the Greeks termed one-man rule, was therefore a necessary step on the road to democracy, for the tyrant, understanding the basis of his power, governed in the interests of the masses, who, once their own level had been raised, could then destroy the tyrant and rule in his stead.

The most important single factor in the revolution we have just described was the widening of the Greek horizon, for it led to a period of questioning and to those centuries of exuberant growth known as Archaic Greek civilization. Colonization, commerce, and new ideas from the East were responsible for a veritable renaissance. But progress was not achieved everywhere at once, because in those places where revolution had been most violent, the arts received a momentary set-back. This paper shows the adverse effect of violent revolution upon Dedalic, or Dorian, sculpture in the seventh century B.C.

PICTORIAL ASPECTS OF THE RELIGION OF AKH-EN-ATEN: AMBROSE LANSING, The Metropolitan Museum of Art.

The revolution of Akh-en-Aten affected not only the politics of Egypt, but also its art and its religion. The study of the new religion has been based almost entirely on the hymns to the Aten. The decorations in the tombs at El-'Amarneh, while they support the generally accepted view that the religion was monotheistic in character, indicate also that the god could not be approached except through the king. The conclusion is inescapable that Akh-en-Aten's action in suppressing the non-solar gods in the Egyptian Pantheon was not so much philosophical in its motive as it was a scheme to further his absolutist designs. The form of his religion might better be called not monotheistic, but monopolistic.

ARCHAEOLOGICAL EVIDENCE OF INVASION: H. O'NEILL HENCKEN, Harvard University.

Archaeologists who deal with prehistory talk glibly of invasions. My experience as director of the Harvard Archaeological Expedition in Ireland, 1923-36, made me wonder a good deal about the validity of this. Besides, there are many kinds and sizes of invasions: bands of armed warriors who come for plunder; immigrations of groups of whole families who come to settle more or less peacefully; movements of craftsmen and traders; and finally, missionary invasions bringing new religions.

The early Irish were conscious that Ireland had been invaded many times in the remote past, but Mediaeval Irish scholars turned these traditions into a kind of pseudo-history called the Book of Invasions, and to extract real information from this is like trying to get the eggs back from the omelet.

To turn to what an archaeologist can call fact, the first invasion is a very simply indicated affair. The stone tools of the first Irishmen, derived from those of the Palaeolithic hunters, can be placed in the Mesolithic period by means of pollen analysis and geology.

The second set of arrivals were already in the Neolithic stage of development. Their presence is indicated by megalithic monuments. These in their original state are big, carefully constructed tombs. Their origin is to be sought in the East Mediterranean, in the rock-cut tombs and their reproductions above ground, such as the pyramids. Both rock-cut and built chamber tombs are to be found distributed among the Mediterranean islands and in the Iberian Peninsula. Further north, rock-cut tombs are few, but the chamber tombs occur along Atlantic Europe as far as the Southern Baltic. In the British Isles, where they were probably first built some centuries before 2000 B.C., they are very numerous. The evidence elsewhere is that in western Europe these people introduced domestic animals, the planting of crops, the use of pottery, and possibly the first knowledge of metal. They were of a distinctive long-headed type of Mediterranean people.

In Ireland, cremation, dampness and robbery have largely destroyed the contents of the tombs, and so the monuments themselves are almost the only real evidence, if it is valid evidence, of the presence of these people. Some have argued that these tombs show nothing but a change of religion, but the distinctive physical type would seem to belie that idea.

About 2000 B.C. or a little after, there is evidence of another so-called invasion. There now appear in Ireland representatives of a different but distinctive Mediterranean type, this time with a broad head. These people spread out from Spain in various directions, but some went to Ireland. Their presence is indicated there by skeletons of the same physical type as in Spain and elsewhere in the Mediterranean. These people did not cremate the dead. They differed from their predecessors in that they buried not in chamber tombs, but in cists made of slabs in small tumuli. Like their relatives in Spain, they used greater quantities of copper and bronze, and made a very distinctive weapon, the halberd. The likeness of their physical type to the occupants of Spain seems fairly surely to connect them with the migrations at this time of this special type of broad-headed people from Spain to other parts of Europe, but their pottery, a feature generally relied upon by archaeologists for evidence of invasion, was very different and only shows a few ornamental devices resembling those on Spanish pots. Hence, in this case, burial custom, physical type and metal objects seem better criteria of invasion than pottery. Here the rather small degree of similarity in the pottery is especially interesting.

The next invasion, so-called, was a very gradual infiltration from Britain, starting probably before 1000 B.C. and continuing for some centuries. The newcomers are called the Urn Folk. These people were the occupants of Britain during the latter half of the local Bronze Age and were a composite of various peoples that settled there in the past. They may possibly have been Celts, and the bringers of the Gaelic language. Their settlements are not yet more than slightly known, but their graves are numerous. They cremated their dead and placed over the ashes an inverted urn, generally covered by a tumulus. These urns, and indeed the types from which the Irish urns were developed, are found in Britain. Here we are forced to depend for a so-called invasion largely upon burial custom and funeral pottery.

Somewhat later than the arrival of the Urn Folk in Ireland, there occurs an entirely new type of bronze tools and weapons, differing from everything seen in the country before. These are derived from Central Europe, through Britain. They are found either singly or in hoards. Sometimes the hoards include broken tools and ingots of metal. These used to be taken as evidence of the coming of a new invader, perhaps bringing the Gaelic speech. But it is also possible that they were just traveling metal-workers like the Irish tinkers of modern times. Indeed, in early Irish historical times there were various groups of metal-workers who held a subordinate position in the social scale, as the tinkers do today. Perhaps the new metal types indicate only the appearance in Ireland of a group of craftsmen.

The evidence of the next invasion, that of the Iron Age, is quite different. Evidence of date, such as it is, points to no earlier than 150 B.C. The weightiest evidence in more senses than one is some big carved stones. These, to judge from Continental analogies, are Celtic Gods. But they are far too big to have been imported, and gods imply worshippers. The style of ornament is also that of the later Celtic Iron Age on the Continent and not connected with possible earlier speakers of Gaelic. The geographer Ptolemy, who wrote about 150 A.D., also places in Ireland some Celtic Iron Age tribes such as the

Brigantes, whose main center was in Yorkshire, and the Menapii, who had come from Belgium. Oddly enough, in the territories of these people there is no archaeological evidence for the presence of Iron Age settlers at all. In much of the rest of the country, a scattering of ornamental bronze objects with the characteristic curvilinear art of the later British Celts indicates at least some contact with the Iron Age people of Britain. My interpretation of this situation, for whatever it is worth, is that the later Celtic invaders were not numerous and were absorbed into the older Celtic population who spoke Gaelic. In any case, they are not represented by any pottery at all.

The next arrival of importance in Ireland concerns only one person, St. Patrick. Perhaps it is not fair to call this a one-man invasion, for other continental clerics came to Ireland both before and after St. Patrick. What these people did was not to change Ireland from a pagan to a Christian country, but to superimpose Christianity on the pre-existing paganism. Also, they did not effect any material change in Irish culture. People continued to live on at about the level of the Urn Folk of the Bronze Age down to Mediaeval times and in some cases into the seventeenth century. Until the twelfth century the monasteries did not differ much either from the prehistoric-looking settlements of the laity. Until the twelfth century also, Irish ecclesiastical art is full of reminiscences of heathen days. This shows quite clearly that the ecclesiastical or missionary form of invasion took many centuries to make a really deep effect on the culture.

The last invasion of which I shall speak is that of the Vikings, who first appeared just before 800. Here we can compare the actual history of an invasion with its archaeological traces. These people came first as large bands of warriors, interested in plunder. In order better to exploit the hinterland, they founded the principal Irish towns: Dublin, Waterford, Wexford, Cork and Limerick, for the Irish had never before lived in towns. In these places Viking Kings established themselves. The pirates took Irish wives and gradually settled down, became Christian, and were finally absorbed. As a political force, they were important for about 200 years. Yet their traces in Ireland are remarkably few. The pagan Viking cemetery of Dublin has been found, but of the other Scandinavian city-states hardly an archaeological trace can be discovered. On the other hand, Viking graves in Norway, especially of the ninth century, are full of Irish bronzes brought home as loot. These caught the keen eyes of the Scandinavian craftsmen of the period, and Northern art at this time is under very strong Irish influence from the days of the Oseberg Ship about 850 to the building of the Urnes Church just before 1100. Indeed an unwary archaeologist, if unguided by history, might decide that the invasion had really gone the other way — from Ireland to Scandinavia.

BATTLE SARCOPHAGI: WAR AS A CREATIVE FORCE: SGT. E. C. OLSEN.

Despite the implications of its title, this paper is by no means a defense of war. It is rather an attempt to demonstrate how, on at least one occasion—during the reign of the emperor Marcus Aurelius—the Roman artists reacted positively to the effects of a war forced upon the unwilling empire and under the impact of immediate experience created new and more vivid representations.

The vehicle of this demonstration is the group of ten sarcophagi, decorated with reliefs of battle scenes, which are preserved from ancient times. These were all made within the period from 150 to 250 A.D. and were presumably intended for the burial of soldiers and officers of the Roman army. As regards the reliefs which decorate them, these sarcophagi fall into two distinct classes. The first class is characterized by figures and groups of figures which were clearly derived from, or at least inspired by, Greek prototypes. According to the old, classical Greek standard, the barbarian antagonists in these scenes are either nude or very scantily clothed, while the figures are in general arranged in pairs, like those in the battle scenes of Greek friezes and metopes. These figures, furthermore, are not only carried over from one sarcophagus to another, but most of them are related to similar figures on Roman monuments of fifty years earlier and even on Greek monuments of several centuries earlier. This situation is explained by the fact that these three sarcophagi were made in the decade between 150 and 160 A.D., near the end of a long period of peace. The sculptors, unfamiliar with the realities of war, borrowed almost entirely from previous monuments and from one another.

The remaining seven sarcophagi belong to a period beginning about 170 A.D. and to a time when the Roman world was seriously threatened by wars on almost every front. When barbarians from the North swept down into Italy as far as Venice and Padua, war must have been brought home to the individual

Romans. Scarcely one of them could have escaped some sort of personal involvement. The scenes on these sarcophagi, therefore, show much greater realism in the matter of dress, equipment, etc., and in the fact that they differ from one another to a much greater extent than those of the previous class. Sure of his material and with new interest, the artist in each case took individual approaches to the problem. Like such modern creators as Shostakovich, these ancient sculptors were forced by their bitter experience to cast off certain traditional standards and to find new methods of expression.

THE TENT OF XERXES: OSCAR BRONEER, American School of Classical Studies at Athens.

(No abstract of this paper was received.)

THE CHANGE FROM ROMAN TO BYZANTINE AT PISIDIAN ANTIOCH: DAVID M. ROBINSON, Johns Hopkins University.

(No abstract of this paper was received.)

SYMPOSIUM: "WHO WERE THE ETRUSCANS?" Presented by the New York Society of the Archaeological Institute, December 30, 1942, at the Metropolitan Museum of Art.

WHO WERE THE ETRUSCANS? DAVID RANDALL-MACIVER.

"Who Were the Etruscans?" Were they indigenous inhabitants of Italy, or were they immigrants from some outside country? This is a question which was very seldom asked in antiquity, everyone was so sure that he knew the answer. You could hardly meet Maecenas without hearing Horace make some allusion to the Lydian origin of his distinguished ancestors, and if again you lived under Tiberius or Claudius it was wise to hold this orthodox opinion. From Vergil to Silius Italicus, and even to Namatianus, every Roman poet uses the epithets "Lydian" or "Maeonian" in writing of the Etruscans, and all the prose writers follow the same practice with the exception of one author in the time of Augustus, of whom I shall soon have to speak more particularly.

Yet this apparent unanimity is an illusion. The Roman writers were certainly copying from one another, and a search for the original source will take us back to one or, at most, two Greek writers of the fifth century. There is little risk in saying that the principal, if not the only, original source is Herodotus. The story as given by Herodotus is to be found in Chapter 94 of his first book. It is worth while to observe the context in which it occurs. The historian has been giving a sketch of the Lydians, in whom he took a great interest, especially on account of their last King Croesus, who becomes one of the chief dramatic characters in his whole narrative. At the close of his historical sketch he devotes two chapters, as any modern author might do, the first to the natural curiosities and monuments of the country, the second to the games and amusements of the people. Games, as the Lydians themselves told him, were invented at a certain particular date, which we can approximately fix by comparison with other events at about 900 B.C. or a little earlier. At that time there is said to have been a great famine in the land which caused the Lydians to invent all manner of games in order to distract themselves from the pangs of hunger by incessant playing. When, however, the famine only became worse and games proved to be a poor substitute for food, it was decided that a large part of the population must leave the country. Lots were drawn and those on whom the lot fell took ship under their prince Tyrrhenus and left Lydia. Passing by various lands and peoples, they came to the country of the Ombrioi, where they settled down and took the name of Tyrrhenians after the name of their leader. (Ombrioi is the Greek for Umbrians, an old Italian people whose territory would naturally have extended at that time over what was later Etruria).

First, it should be particularly noted that Herodotus takes no interest in the Tyrrhenians as such. The story which he quotes is merely incidental to his account of Lydia; he has no intention of discussing the Etruscans. Had he been interested in this problem for its own sake, he would have given us some tradition collected in Italy. Though he lived in southern Italy for some twenty years, he never discusses any Italian question; Italy was no part of his subject, which was the war between Greek and Persian. The one person, in fact, who might have collected and handed down some native tradition preserved among the Etruscans themselves had not enough curiosity to do it. Secondly, it should be noted that the story is not based on any observation or conjecture made by Herodotus himself; it is a native Lydian tradition, prefaced by the words, "The Lydians say . . ."

Herodotus was travelling about Asia Minor, collecting the material for his work about 450 B.C. The Lydian story which he quotes refers to events four or five centuries before this. Does this lapse of time impair its validity or render it less credible? I can see no reason to think so. In the Scottish Highlands ballads and tales preserve the memory of events three and four hundred years, and sometimes longer, without any written chronicle. In Iceland sagas, which were not committed to writing before the twelfth and thirteenth centuries, give the minutest details of battles and settlements of land in the ninth and tenth. Famines, and great disasters imprint themselves indelibly on the memory of the people. A great famine which took place in the tenth century B.C. might well be remembered with all its attendant circumstances in 450 B.C. For how many centuries will not the great famine in Ireland be remembered, or the dearth and misery which drove whole Scottish clans to migrate to Canada in the eighteenth and nineteenth centuries? There is no apparent reason, therefore, to suspect the essential truth of the tradition handed down among the Lydians.

The one writer in all antiquity who denied the Lydian origin of the Etruscans and derided it as a fabulous tale was Dionysius of Halicarnassus, a learned Greek of the Augustan period, who wrote a well-known work on the early history and legends of Rome. It chanced that he was born in the same city as Herodotus, though more than 400 years after him and he professes a great admiration for his famous fellow-townsmen. Now it is very important to note in the first place that he lived 900 years after the events supposed to be chronicled in the Lydian story. That is the same interval which separates us from the Norman conquest of England. An intelligent Oriental visiting Europe today might well fail to observe much resemblance in language and customs between the English and their Norman cousins across the Channel. And yet this is one of the principal objections raised by Dionysius, that the language, religion and customs of the Lydians and Etruscans are wholly different. I might here interpolate that comparisons of this kind, when made by any ancient author, are practically worthless. To give any good judgment on similarity of customs the observer must be trained in that subject. Nor can anyone but a professional philologist give an opinion of the slightest value on similarities or differences of language. Dionysius was a learned man for his day but he was naturally enough quite ignorant of modern scientific methods. His assertion that the Etruscans are a wholly peculiar people seems to us to be an argument rather against than in favor of his theory that they are indigenous to Italy.

The credence which Dionysius has found among some modern writers of history is not due so much to his general arguments as to his claim to have seen and studied an original document of the same period as Herodotus. This was the Lydian history of one Xanthus, who, says Diodorus, knew Lydia if any man ever did. And the argument, which seems formally a very weak argument, is that because Xanthus does not mention the migration of the Tyrrhenians, therefore it never took place. But several answers can be made to this. Xanthus may have been following those very principles which Diodorus lays down in his own egregious preface on the rules which should guide any good historian. First and foremost, the good historian must avoid any subject which does not redound to the credit and glory of the country of which he is writing. But there is an even better explanation of the supposed omission. For it is now acknowledged by partisans of both sides that Dionysius can never have seen an authentic and complete copy of Xanthus. If he saw anything at all, it was a later *réchauffé* of that author's work, and even this was branded as a forgery by one ancient critic of some standing. In short, Dionysius is a respectable writer, who generally gives the impression of being sincere, but in this matter of the Etruscans it is hard to acquit him of the charge of disingenuousness.

I have now put before you the whole of the literary evidence on this subject; you can see how pitifully slight it is. We may pity the plight of those professional historians who admit no evidence except some written document or inscription. It must be hard to write a chapter on the Etruscans with no more solid foundation than I have described. In this quandary, the modern writers of ancient history choose one of two courses. Either they slavishly follow Dionysius, carefully ignoring the fallacies and frauds in his argument, or they adopt the Lydian theory and comb the Greek texts for some collateral evidence to support it. Among the followers of Dionysius are some highly respectable names, particularly those of de Sanctis and Ettore Pais in Italy. On the other hand, the Lydian theory has been adopted by several great Continental writers and a number of less importance. It has been appreciably strengthened by their discovery that several Greek writers agree in stating that the inhabitants of Lemnos were

known as Tyrsenoi in the fifth century. The island of Lemnos is geographically almost a part of Asia Minor. But when it is further claimed on the strength of a passage in Thucydides that Tyrsenoi can be equated with Pelasgi, I must refuse to follow. The statement of Thucydides can easily be explained away. In any case, whatever Greek writers may have meant by Pelasgi, they certainly did not mean Lydians. To follow Hellanicus is to follow a will-o'-the-wisp.

It is now time that we left the so-called literary evidence. The documentary historians are evidently bankrupt. If this question of Etruscan origins can be settled at all, it certainly cannot be settled by them. But there are other methods. Archaeology has written many new and unexpected chapters on Mycenae, Crete, Egypt, Mesopotamia and other countries. It has the material and the means to write a new chapter on the Etruscans. Excavations and explorations have amassed a quantity of material which grows yearly larger and yields constantly new results to improved analysis. Archaeologists, geographers, linguists, students of Art, Religion and Customs have all their separate parts of play. I can barely indicate some of the heads of treatment; the speakers who follow me will elaborate many of the details.

First, I will touch on the geographical aspect, which has not been assigned to any other speaker. Etruria, before its extension by conquests in the sixth century, was confined to a strip of the western coast of Italy lying between Pisa and Rome, west of the Apennines and not extending into the mountains. It is obvious that this is a purely coastal territory, extremely vulnerable to attack from the sea. A survey of Italian prehistory and history will show that all the coasts—east, south, and west—have been at various times invaded and colonized by foreigners. Venetians, Illyrians, Gauls, Iapygians, Messenians, and Greeks have made permanent settlements all around the coastal rim. It is naturally to be expected, therefore, that a coastal population will be composed of non-Italians. Why should Etruria be the one exception? Next, it is to be observed that exploration has proved beyond all doubt that it is precisely those cities, such as Vetulonia, Tarquinii and Caere which were founded on the sea-coast, which are the most ancient; the inland cities belong to a secondary stage, that of colonization and extension from the earlier sites. The pattern of settlement is precisely similar to that of the Greeks in Magna Graecia, which is positively known to have been made by foreign conquerors.

Passing next to the customs of the Etruscans, as to which we have much information from the tomb-paintings, we find that these depict a laughter-loving hedonistic people, most unlike their grave and stolid neighbors, addicted to horse-racing and sports, games and music. We know little of the customs of Lydia, but we can say that this general character is more like that of Ionians than Italians.

In the field of the Arts and Crafts there is a great wealth of material for study, much of which will be discussed by later speakers. I will only say that in the eighth and seventh centuries, before the great influx of Greek imports, there is a very marked near-Oriental character in all the work, especially in the ivories, bronzes and jewelry. Much of this work was undoubtedly produced in Etruria, always famous even among the Greeks for its metal work, and it can be shown that the Etruscans introduced new techniques previously unknown in Italy.

The religion of the Etruscans has little or nothing in common with the religions of the Romans and Italians, whereas it is marked by some particularly strong Oriental characteristics. Most striking is the precise identity of the system of divination by means of animal livers with that practised in Chaldaea. A model sheep's liver inscribed with Hittite characters has been found at Boghaz-keui, very near the presumed Lydian home of the Etruscans.

Finally, the numerous Etruscan inscriptions, though they cannot yet be interpreted, can be analyzed morphologically as specimens of language, no less accurately than botanical or zoological specimens. The philologists assure us that not only is there no trace in them of any Indo-European character, but there are very striking and close resemblances to various dialects of Asia Minor.

It seems, therefore, that all these several lines of enquiry lead directly to the Lydian solution of the problem. We in no way base our conclusions on the story in Herodotus, but we find in that story a welcome corroboration. The solution which commended itself to good minds in antiquity is no figment of the imagination. I am conscious that I have in one respect failed in my duty as the introductory speaker. Those who maintain that there are always two sides to any question may well complain that I have presented only one. Yet, with the best intentions to be impartial, I find it impossible to detect any good argument for the theory that the Etruscans were a very old and indigenous people in Italy. I must

leave it, therefore, to some other speaker, and I hope there may be one, to defend the view so strenuously maintained in Italy by Signor Pareti. To me, it appears to rest on nothing better than the *Ipse dixit* of an Augustan writer who was no better qualified to give an opinion than the most casual person in our own days. There is no evidence that he knew more of the Etruscans than any Roman man in the street. The older Roman writers from whom he derived the material for his account of the heroic legends and the institutions of the Republic knew nothing and cared nothing for the history and origins of their deadly and dangerous enemies. Lastly, Dionysius was perforce ignorant of all the knowledge which we derive from Archaeology, on which alone any valid arguments can be based.

EARLY ETRUSCAN TOMB GROUPS: EDITH HALL DOHAN, University Museum, Philadelphia.

Italy has been invaded more than once, but whence the first invaders came and when they arrived are questions debated still by scholars. Most interesting of the invaders of Italy are the Etruscans, who under the Tarquins conquered Rome. It used to be held that they arrived early in the second millennium B.C., but careful study of the contents of Greek tombs opened in the Agora at Athens and of pottery and bronzes from Italic tombs now preserved in the University Museum at Philadelphia, indicate that they may have arrived as late as the seventh century B.C.

THE EVIDENCE OF ARCHITECTURE AND SCULPTURE:* GEORGE M. A. HANFMANN, Harvard University.

If we trust the ancient tale of Herodotus, we must think of the Etruscans as the Columboes of their age, setting out from Asia Minor to colonize the primitive western area of the Mediterranean. If we reject the historical tradition of a sea-borne colonial invasion, the change of material culture that occurs in Tuscany in the late eighth and the seventh centuries B.C., may be explained in a different way. On this alternative theory, the Etruscans would be natives who have become civilized under the influence of new standards of living brought to them from the Near East and Greece by the rising sea-traffic of the Mediterranean. Such peaceful conversion to foreign forms of culture is not unparalleled in history. The early Russian Kingdom of Kiev, composed of Slavs and ruled by Germanic Vikings, received its religion, culture, and art from Byzantium, not altogether peacefully, but certainly without becoming a Byzantine colony. It is argued that by the same token the Etruscans of the seventh century could perfectly well have used Phoenician perfumes and ivories, built their temples in the Greek manner, and have drunk from Greek vases without their ancestors ever having set foot outside Italy.

I shall assume as a working hypothesis that the Etruscans came from overseas, and shall consider whether Etruscan architecture and sculpture can supply any data substantiating this hypothesis. The method which I propose to use can be illustrated best by resuming our comparison of early Etruria and early Russia. We know from the so-called Primary Chronicle that Vikings were called in as rulers by the Russians. Shortly thereafter, in connection with the Christianization of Russia, Byzantine culture was introduced, and the differences between the ruling Vikings and the subject Slavs were largely obliterated in a common Russo-Byzantine culture. If, by comparing the wooden churches and forts of Early Russian architecture with those of early Mediaeval Scandinavia we can discover survivals of Viking carpentry in Russia, we shall obtain archaeological corroboration of the historical tradition.

The Orientalizing culture of the seventh century B.C. in Etruria performed the function which Byzantine culture of the tenth and the eleventh centuries A.D. performed in Russia: it obliterated the differences between the Etruscan rulers and their Italic or "Villanovan" subjects. But if we can discover in Etruscan temples, dwellings, and tombs of the seventh century architectural ideas and techniques that

* I had hoped to marshal the evidence for the views expressed in this paper and to temper the contentiousness of my text with the caution of my footnotes. Fortunately, the Editor has decided against the use of the erudite ballast that we normally relegate to footnotes; fortunately, I say, because at the moment of revision I have no access to my material. I, therefore, limit myself to a few references given from memory. Etruscan house models and houses: A. Andr n, *Italic-Etruscan Architectural Terracottas*, 1940, and G. M. A. Hanfmann, *Journ. Soc. Archit. Hist.* iii, 1942; Crete: J. Pendlebury, *The Archaeology of Crete*, 1939; Near East: V. M ller, *JAOS.* 1940; H. H. v.d. Osten, *Alishar H yük* iii, 1941; Assyrian relief with Proto-Ionic building: G. Loud, *Khorsabad* i, Text, 1936; Lemnos: L. Pernier, *AJA.* xxxviii, 1934; Aegean: E. B. Smith, *AJA.* xlv, 1942; Dreros Bronzes: *BCH.* 1937; Etruscan sculpture: G. M. A. Hanfmann, *Crit. d'arte* 1937.

were not generally current in the Orientalizing culture of the seventh century, had not been known in pre-Etruscan Italy, but were found in pre-Orientalizing structures of Asia Minor and adjacent regions, we shall obtain archaeological corroboration for the theory that the Etruscans came to Italy from Asia Minor.

In order to estimate correctly the relations between Etruscan architecture and that of the Near East and Greece, we must briefly consider the cultural setting from which the Etruscans emerge. The age in which their migration may have occurred comprises two historical periods. The first is the Dark Age of antiquity between 1100 and 750 B.C. It was initiated by disastrous invasions of migrating tribes who destroyed the urban cultures of Minoan Crete, Mycenaean Greece, and Hittite Asia Minor. Political and social organization in the eastern Mediterranean was pulverized into small units and living standards took a plunge which makes our twentieth-century crises appear trivial. When the violent invasions had subsided, the continuity of urban culture was maintained only in Egypt, Assyria, Armenia, Syria, Palestine, and, to a lesser degree, in Cyprus. In Greece, the ruined Mycenaean cities provided models and nuclei for a new, gradual advance toward the Classical form of city state, but Greece was substantially isolated from the superior cultures of the Near East. Italy, and the whole northwestern shore of the Mediterranean, had never had an urban tradition and was organized in small units of pastoral and agricultural character.

The second period, between 750 and 600 B.C., is usually known as the "Orientalizing" period. It is marked by speedy cultural advance. Active trade is established between the semi-urban culture of Greece and the urban culture of the Near East, and both compete to open the unconquered expanses of the western Mediterranean. Phoenicians and Syrians lead the way, but in the late seventh century, political as well as cultural leadership passed to the Greeks. In Italy, the first indisputably Etruscan period falls approximately between 700 and 600 B.C.; it is dominated by the Syro-Phoenician and Greek "Orientalizing" products.

Since the Etruscans are said to have come from Asia Minor, the state of culture in Asia Minor during these two periods has great importance for the question of Etruscan origin. The recent excavations at Boghazköy, Alishar Huyuk, and Tarsus have shown that the period between 1100 and 700 B.C. is marked in Asia Minor by a definite degradation of constructive techniques and by a low level of artistic industry. The progress of this "Post-Hittite or Phrygian Geometric" culture is exceedingly slow. The Orientalizing renaissance does not set in until about 650 B.C. and the impetus seems to come from the Greek cities on the coast of Asia Minor rather than from genuinely Oriental neighbors like Assyria and Urartu (Armenia). Any emigrants leaving Asia Minor prior to 700 B.C. would, therefore, represent the relatively poor "Post-Hittite-Phrygian" phase of culture, not the luxurious "Orientalizing" phase that sets in about 650 B.C. Throughout both periods architectural construction in wood, mud brick, and stone is practised at all important sites, although the technical quality and the planning are considerably inferior to those of the Mycenaean and Hittite period.

We may turn now to a consideration of early Etruscan architecture. First the sacral buildings. There are no extant Etruscan temples from the earliest period, but the very ancient ceremony of triumph requires an image of the god to whom the spoils of war were presented and hence also a shrine to house the image. Other Etruscan ceremonies presuppose a regular precinct, a platform to watch the sky, and an altar for sacrifice, but not necessarily a temple. These early shrines were made of wood and unbaked bricks; unless their foundations were of stone they could easily escape detection. Tangible archaeological evidence for the Etruscan temples appears in the late seventh century B.C., when the Etruscans begin to decorate their buildings with terracotta revetments. The buildings have usually vanished, but the durable terracotta revetments survive. One of the earliest, from Rome, shows a little rider on a long-legged horse, copied quite faithfully from a Greek relief of the so-called Daedalic style, probably after a Greek terracotta frieze of the seventh century. Architectural terracotta revetments had gained popularity in Greece at the time when the Greeks proceeded to enlarge and regularize their temples at the end of the Orientalizing period. The Etruscans promptly adopted the Greek fashion. We would draw this conclusion from archaeological evidence, but this time it is supported by literary references. According to Pliny (35,152) royal refugees from Corinth came to Etruria in 657 B.C. bringing with them Greek artists who taught the Etruscans how to make terracottas. We may infer that if the Etruscans had any earlier temples, they did not decorate them with ornamental terracottas. They may have used painted decoration of wood.

We must descend some hundred and fifty years from the beginnings of the Etruscan era before we find evidence for the superstructure of Etruscan temples. A small model of a building found in the sacred precinct of Satricum-Conca, was perhaps intended to represent a shrine. Two columns on heavy bases are set rather far out in front of a rectangular room; the structure is covered with a large, sloping roof. But is this a temple or a house? We know Etruscan temples of this plan from later times; and additional evidence for this simple prostyle sanctuary is given by an archaic Etruscan relief, ca. 520-500 B.C. It shows the dead laid out on the parade bed in front of a similar columnar and gabled structure.

Some of the very early Greek temples were of the same type; they, too, are known through models found at Argos, Perachora, and Tiryns. They are at least one hundred years older than the Etruscan model from Conca. It has been concluded that the Etruscans have copied the plan as well as the structure of this type from the Greeks, just as they had copied the Greek revetments for the decoration of their temples. But the only really distinctive similarity between the Etruscan and the Greek models are the columns. Indeed, Studniczka had argued that the Etruscan temples must be derived from the Greek because the so-called Tuscan column may be traced back to a parent of the later Doric column of the Greeks. He also observed that this borrowing must have taken place before the Doric order became unified and standardized, i.e. before the mid-sixth century B.C. But columns are not a feature of the earliest phase of Etruscan architecture; not a single example of a column in the entire Etruscan architecture dates before the middle of the sixth century. The columns are a Greek feature, taken over by the Etruscans when they were assimilating the external appearance of their temples to those of the Greeks. A number of earlier, unpublished temple models, found in the same sacred precinct of Conca as the columnar model, portray the simple rectangular house. This, then, was the earliest form of the Etruscan shrine, a form closely resembling the Etruscan dwelling of the seventh century.

This one-room type of Etruscan temple presumably was at first a small rectangular house with a sloping roof; columns and terracotta revetments were added after Greek models between the late seventh and the mid-sixth century. It continued to be used for several centuries for smaller sanctuaries. Since its original form was identical with the Etruscan house, we shall consider its Mediterranean ancestors and relatives, when we discuss the early Etruscan dwellings.

A small terracotta model from Velletri introduces the second type of Etruscan sanctuary. Its plan is characterized by the division of the rear into two parallel rooms with a fairly deep porch added in front. Similar "double-rooms" preceded by a hall occur in Etruscan tombs and houses. The division of space along the central axis was a favorite principle in the buildings of the Minoan culture of Crete; it occurs in prehistoric art of Asia Minor and persists there in Phrygian and Lycian tombs, which range from Orientalizing or even Geometric times to the age of Alexander the Great. In Greece, the central division of space had a limited vogue during the Dark Age which followed the breakdown of Mycenaean civilization. Thus we have a central row of supports in Megaron B in Thermos and in a series of experimental temples in Greece (Thermos, Sparta), the Greek islands (Samos, Crete), and the Greek colonies in Asia Minor (Larissa). It is probable that the Greeks either inherited this plan from Mycenaean (Late Helladic) times or adopted it from the peoples of the Eastern Aegean. It was rarely used in Greece after the end of the Orientalizing period. But the Greek examples have a median row of supports, not a solid dividing wall; the variation with the solid dividing wall occurs on the island of Lemnos, in Asia Minor, and in the Near East. We may, therefore, conclude that the Etruscans could only have had knowledge of this plan if they had been in contact with the architecture of the Eastern Mediterranean during the Dark Age (eleventh-eighth century B.C.).

The third type of Etruscan temple plan is the much discussed Tuscan temple described by the Roman architect Vitruvius. The building is placed on a high platform. The rear is divided into three parallel rooms; the size of the porch equals that of the cella. A low, heavy gabled roof is supported by two rows of widely spaced columns. The earliest archaeological traces of this "tripartite" temple date from the late sixth century B.C., at least two hundred years after the beginnings of the Etruscan culture, but it is reasonably certain that there were earlier sanctuaries of this type. At least, the same division into a deep hall and three chambers occurs in Etruscan tombs of the late seventh century. It has also been observed that this tripartite division has a long and venerable tradition in the Near East, where several examples of "tripartite" rooms are found in Syrian and Palestinian buildings of the eighth century (Tell Tainat, Megiddo, Hama). But even more important for the question of origin of the Tuscan

temple are terracotta models of sacred buildings found in the "Tyrrhenian" island of Lemnos. This island was inhabited by people whose language was related to Etruscan. Indeed, some scholars now assume that the original Etruscans split into two groups, the eastern group settling in Lemnos and perhaps on some other islands of the Eastern Mediterranean, the western going from Asia Minor to Etruria. The two Lemnian models parallel two types of Etruscan temple plan; one shows the room divided along the central axis; the other the "tripartite" Vitruvian room. The model with three chambers gives an important clue to the original form of the Etruscan temple with three cellas. Again the columns turn out to be the result of Greek influence. The original form had an open platform in front. The purpose of this open area becomes clear when we remember that in Etruscan ritual the priests had to keep constant watch of the skies from a clearly defined and measured area. It is relevant to the origin of this type that a similar "tripartite" building served as a sanctuary of an old, pre-Greek cult in the island of Samothrace, which during the Dark Age was apparently populated by the same race as that found on the island of Lemnos (cf. also the post-geometric sanctuary in Eleusis). In the later Etruscan temples the roof was extended over the open part of the platform. Whether the Etruscans made this change to adapt the building to local conditions in Italy or at a later time, when they were striving to approximate the appearance of their sacred buildings to Greek temples, remains uncertain.

A peculiar feature of the Etruscan temple is its high platform or "podium." We find some interesting, but isolated comparisons for this feature in the Near East. The temple of Khaldia at Musasir in Armenia, for instance, shown in an Assyrian relief from the Palace of Sargon at Khorsabad, is placed on a high podium. Another relief from the same palace portrays a building, possibly of "tripartite" plan, with a flat roof supported by Proto-Ionic columns; the structure is again raised on a high podium. It is, unfortunately, unknown in what part of the Assyrian Empire the Royal hunt represented in relief is taking place. We may only suggest that buildings on similar podia were known in Armenia and Assyria during the eighth century.

Thus two types of Etruscan temples show in plan and structure affinities with the architecture of the Dark Age in the Eastern Aegean and the Near East.

We turn now to early Etruscan dwellings. The rectangular, gable-roofed house has already appeared before us as a candidate for the early Etruscan temple. This is the only type of dwelling that can be safely called early Etruscan. The small house models, like this bronze urn from Falerii reproduce, of course, only the most essential traits of the exterior, but some idea of the plan may be gleaned from house plans of the seventh century, excavated at Veii, while the placing of doors and windows can be inferred by comparison with certain types of Etruscan tombs. These houses were neither large nor luxurious; they consisted of a smaller front room and an oblong living room. As a rule, they were built either of wood or of a wooden frame and unbaked bricks, yet some houses had not only foundations, but also a superstructure of stone, particularly if a part of the house was cut into the rock. Usually the roofs were gabled, but flat roofs may have occurred in some regions. One of the houses in Veii had an arched doorway. All of these features, as well as the round-headed windows which occur in some Etruscan tombs, are embodied in a reconstruction, which I have published in a recent article.

This simple rectangular house, entered on the short side, is a variation of the so-called "Megaron," a type that was popular during the Geometric Age in the Eastern Mediterranean as well as in Asia Minor. Examples of this are seen in a tomb façade at Myra in Lycia—with two doors, as in the "double-room" plan of the Etruscans, and some Phrygian tombs, all from Asia Minor. The two Greek temple models from Perachora and Argos, though based on the same type, have columns in front. This is, indeed, a very simple house and can be found in many regions of the world. Nevertheless, even this simple kind of house had to be "invented." What matters is that it does not occur in the pre-Etruscan Iron Age of Italy, whereas it does occur in the eastern Mediterranean and in the Near Eastern areas during the Geometric Age. True, the date of the Phrygian tomb façades has never been exactly determined, but the same house plan was found in an absolutely *bona fide* Geometric level of the Phrygian settlement at Alishar. It was "endemic" in Asia Minor from the times of prehistoric and Mycenaean Troy.

The round-headed doors and windows, with which we have endowed the original Etruscan house, are common in the Near East, but not in Greece. Examples are known from Phrygia. The early Etruscan house, then, may well have descended from eastern Aegean or Near Eastern houses of the Geometric Age. It could never have been evolved from the native huts of the pre-Etruscan culture of Italy, which

we designate by the name "Villanovan," though much misplaced ingenuity has been wasted in attempts to show that the Etruscan rectangular house is already portrayed in Villanovan "house urns." Actually, they belong to two different cultural levels, and, in all probability, to two different cultures. The Villanovan huts, even in settlements of several thousand people, such as Bologna, were semi-subterranean dugouts, with an irregular superstructure of poles, branches, and clay, topped with a thatched roof. Their shape is always irregular and there is no alignment at right angles in the plan. The people who built these huts knew little about wood-frame construction and nothing about masonry. The difference between the Etruscan house and the Villanovan hut is, indeed, as strong as the difference between the Colonial blockhouse and the wigwam. It is natural that such native huts should have survived into Etruscan or even into Roman times. Primitive house types can survive in any civilization. The domestic architecture of Etruria presents a situation such as one would expect in a colonial country. The imported type of house serves the needs of the colonists, presumably with some adaptations to local materials and climate. The indigenous populace, particularly in the country, retain their traditional huts. Of course, there are limitations to this principle; all colonists are prone to use native huts for headquarters until such time as conditions warrant the construction of more durable and ambitious domiciles. If we have correctly diagnosed the character of the Etruscan house, it would appear that it offers an argument for the colonial theory of Etruscan culture.

From the ecclesiastic and domestic architecture, we proceed to the architecture of Etruscan tombs. They are numerous, often well preserved, and begin earlier than any extant remnants of temples or houses. They have been quoted as proof of an Etruscan immigration from Asia Minor. On the other hand, it has been pointed out, that within each Etruscan cemetery the elaborate architectural tombs seem to develop from rather simple rectangular trenches. I do not believe that this development constitutes an argument against the immigration of the Etruscans; early colonists do not spend their time constructing elaborate mausolea. The decisive argument for foreign influence is the absence of regular, planned tombs on a large scale in pre-Etruscan or Villanovan cemeteries. Some scholars have maintained that the appearance of architectural tombs was due to commercial influence; but what kind of commercial influence awakens the desire for subterranean apartment houses? Furthermore, it is remarkable that when the Etruscans begin to build more ambitious tombs, they adopt tomb forms which had been current in the eastern Mediterranean during the Dark Age. Villanovans constructed no large mounds; the Etruscans erected large mounds supported on a profiled base. So did the Lydians of Asia Minor. The mound burials seem to have spread into the Mediterranean in connection with the migrating peoples who poured into southeastern Europe and Asia Minor during the Dark Age. Centuries later, they were used by peoples of the same kind, such as the Scythians of South Russia and the Thracians of Bulgaria.

Even more important for the Etruscan background are the tombs with corbelled domes and vaults, partly cut into rock and partly built of masonry. The knowledge of masonry construction was very limited during the Dark Age; it survived only in those parts of the eastern Mediterranean where the new invaders had come in contact with the Minoan, Mycenaean, or Near Eastern architecture. One of the earliest Etruscan tombs of this kind, the Regolini-Galassi tomb of Caere, has a false vault very similar to those of the Mycenaean tombs at Ras Shamra in Syria. Since the tombs of Ras Shamra are several hundred years earlier than the Regolini-Galassi tomb, they cannot represent its immediate prototype. We know, however, that this Mycenaean type survived in modified and debased form on Cyprus, in Crete, and possibly in Asia Minor. The large tholoi tombs of Casal Marittimo descend again from Mycenaean ancestors, through smaller tholoi of the eastern Aegean and of southern Asia Minor. The corbelled tholoi of Populonia, which are among the earliest Etruscan tombs, find very close parallels among the tombs of Proto-Geometric Crete.

Finally, the standard plan of the Etruscan tombs with a long sloping corridor leading to a rectangular chamber was diffused in the Mycenaean period throughout the Eastern Mediterranean and maintained itself during the Dark Age in Cyprus, Crete, Greece, and possibly in Asia Minor. These tombs of Asia Minor present a peculiar problem. Some of them are certainly similar to the Etruscan; others are not. Very few of them can be dated; of those that have ornament of any kind, some go back to the late seventh century, but none can be positively shown to be earlier. What happened in the southwestern corner of Asia Minor during the Geometric period is still a mystery. The most competent explorers of Asia Minor assert as a matter of personal belief that the rock-cut architecture of Asia Minor was largely

a work of the tribes which moved into the peninsula between 1100 and 600 B.C. Thus we still do not know whether any of these tombs antedate the rock-cut tombs of Etruria. The material culture of Asia Minor in this period is so poor that only further excavation, combined with intensive work on the sequences of Geometric pottery, can provide a decision.

It seems that a proper assessment of the relations between the eastern Aegean and Near Eastern architecture on the one hand, and Etruscan architecture on the other, cannot be made by comparing only tombs with tombs, houses with houses, temples with temples. The technique of handling stone as a material is the really important link. The Phrygians in Asia Minor, the mixed population of Cyprus, the inhabitants of Samothrace, Lemnos, and Crete knew how to cut regular spaces into stone, how to quarry stone, how to put it together in fortress walls, rectangular houses, corbelled vaults, or small false domes. The Etruscans, too, knew all these things, but the pre-Etruscan inhabitant of Central Italy had stepped on the same rocks as the Etruscans for several hundred years without feeling the urge to build a single stone structure of any size or regularity and without cutting any tomb that would be more than a shaft. The same difference appears in planning; the Etruscans knew how to plan regular buildings and the Villanovans did not. It is true that these contrasts reflect two different levels of culture, and under certain conditions one may evolve into the other, but in Tuscany the transformation was so rapid that an immigration of people at a higher cultural level appears to afford the more natural explanation.

The evidence of Etruscan sculpture presents a different set of problems, for sculptural models can be diffused through the media of minor arts, whereas transmission of architecture requires more than a passing acquaintance with the buildings that are imitated. We can hardly do more than establish the fact that early Etruscan sculpture shows many relations with sculpture of the eastern Mediterranean area. When was this contact first established? In the Geometric period, the sculptural tradition of the eastern Mediterranean disintegrated even more than the architectural. In Greece, on the islands, and in most regions of Asia Minor, we find small and crude bronzes and terracottas. Only Assyria, Phoenicia, Urartu, and the Syro-Hittite states produce sculpture of considerable size and ornamental elaboration, but the influence of this Near Eastern block does not penetrate very far. A terracotta head from Crete, sharp, definite, and expressive may stand for the Geometric sculpture of the eastern Mediterranean. In the late eighth and early seventh centuries similar small bronzes and terracottas are found in Sicily and also along the entire west coast of Italy. They are particularly numerous in Etruria. The Etruscan figurines are locally made imitations of eastern Geometric figurines, vaguely dependent on Greek, Cypriote, and Near Eastern models. The well known bronze figurine from the Tomba del Duce, Vetulonia, partakes of this East Geometric character. If the Etruscans came from Asia Minor at any time prior to the seventh century, these crude figurines would have been the only kind of sculpture that they knew.

The second, "Orientalizing" phase of sculptural development in the Mediterranean begins in the late eighth century and lasts until the middle of the seventh. Works of sculpture become much more frequent and their variety mirrors the exchange of artistic ideas between Assyria, Syria, and Phoenicia, on one hand, and the Greek cities on the other. The use of sculpture is still confined to minor arts. The artists revel in fantastic figurative creations in luxurious decorative effects. For Etruria, the difference between the various Near Eastern and Greek components is relatively unimportant, because all these influences reach the Etruscan artists approximately at the same time. Thus, the very fine bucchero reliefs from Caere seem to utilize Assyrian models, as may be seen by comparing the animals of the bucchero disk in the Vatican to the decorative disk shown on the garment of an Assyrian King. Either Greek or Phoenician models may have been copied in the bucchero caryatids of the same Caeretan workshop. Again, the earliest considerable terracotta figures found in Etruria—about one-third life size—resemble a Phoenician ivory found at Sardis in Lydia. Approximately at the same time, early Greek figurines of the kind that have been found in the temple of Dreros in Crete served as models for the remarkable Etruscan sculptures of the Pietrera Tomb in Vetulonia. For three generations Etruscan sculpture was produced on the theory that any foreign thing was a good thing to imitate.

This mingled and hybrid sculpture comes to an end in the late seventh century B.C. Greek influence becomes dominant, just as it did in architecture, and for the same reason. During the so-called "Daedalic" (Late Orientalizing) period, the Greeks proceeded to unfold an enthusiastic production of truly monumental temples and sculpture. They took from the art of the Near East what they needed and

created a new style that was logical, orderly, yet alive with disciplined energy and human freedom never before seen in any art. The Etruscans, cut off from the Near East by various political developments, embraced wholeheartedly the new Greek culture. The example of Greek art guided them from "Daedalic" work, such as the centaur of Vulci, shaped after Corinthian models, to the magnificent late archaic sculpture, exemplified by the famous Capitoline wolf. Within the general framework of Greek art, they developed a colonial art with an Etruscan flair.

For the question of origin, Etruscan sculpture yields no certain connections. The study of architecture offers some hypothetical probabilities. In closing this paper, I repeat that the question, "Who were the Etruscans?" is a challenge to the student of comparative culture. For this purpose, which transcends the study of material remains, the tenor of Etruscan life, the modes of Etruscan religion, society, and political organization, the character of their language, the analysis of the greatest expressions of their art are of greater value than the examination of the material remains on a formal or typological basis.

ETRUSCAN WALL PAINTINGS AND THEIR TECHNIQUE: PRENTICE DUELL, Fogg Museum.

Within the span of more than one thousand years that elapsed between the mural paintings of Crete and those of Rome, the artistic expression of the ancient world culminated in Athens, but for all that remains today of Hellenic art, the mural paintings are known only from literary references, indirectly from vase paintings, and principally from their reflections in the fairly contemporary paintings in the Etruscan tombs in Central Italy and in the later paintings and mosaics of Pompeii and Herculaneum. Throughout this time, painting continued in Egypt in its traditional way, gradually finding a lower level until Graeco-Roman times, but on the Continent the paintings in Etruria are essentially the sole survivors of mural painting of the time when painting reached its highest achievement.

From its beginning in the seventh century to its decline in the second century B.C. Etruscan painting tended to be imitative and the apparent lack of originality on the part of the artist thwarted the development of a wholly native art. At first based on Near Eastern and Ionic models, its style was strongly influenced at the end of the sixth century to the middle of the fifth century B.C. by the art of the Greek mainland and the vast number of Greek vases that were found in the Etruscan tombs when they were opened must have been imported at this time. Many figures and groups of figures in the paintings find their counterparts in Greek vases of a somewhat earlier period and, indeed, Greek motives ranging over half a century are sometimes combined in the same painting. Remaining ever a provincial art, it lags stylistically behind the source, and what was the archaic art of Greece may be regarded as the classical period of Etruscan art. However, at this brilliant and extraordinarily creative period in Athens itself, the famous ateliers were most likely crowded with talented artists and many, of necessity, must have sought less competitive fields elsewhere; indeed, some of the better artists were probably lured from Greece to the more luxurious Etruria by the offers of wealthy patrons.

The greatest collection of Etruscan paintings is contained in the subterranean tombs at Tarquinia, foremost of the twelve Etruscan capitals, and City of the Tarquins—kings of early Rome. Here the work of a school of painters developed, flourished, and declined with the history of Etruria itself. The site is on the west coast, about thirteen miles north of Civitavecchia and thirty miles southwest of Viterbo. A few miles inland from the ancient harbor lies the long narrow ridge of the necropolis extending in a line approximately east and west, its white cliffs rising to about five hundred feet. The western end of the ridge is crowned by the high walls and towers of the modern town of Tarquinia, a fascinating relic of Romanesque times. Outside the town, the necropolis presents a desolate and dreary scene with the now shapeless mounds of the tumuli rising occasionally above the wild grass and shrubs. About two miles to the north of the necropolis rises a second ridge, separated from the necropolis by a deep valley and practically parallel with it. This may be the site of the ancient city, protected somewhat from direct invasion from the sea by the ridge of the necropolis. But the palaces, public buildings, and sanctuaries which must have been rich in wall decoration have all disappeared and only the paintings in the tombs remain, protected by their depth underground. Today, there are twenty-four tombs that may be seen, but the total of those excavated exceeds this number, and several of the most important ones discovered in past years and described by early writers are now closed. The open tombs range in date from the latter part of the sixth century to the middle of the second century B.C.

The scenes depicted on the walls of the tombs usually represent an elaborate funeral banquet of men

and women; the banquet is being held out-of-doors, sometimes under a canopy or funeral tent. Other people assist in celebrating the occasion with games and dances; these people may be regarded as clients or hirelings or as the slaves of the nobles assembled at the banquet. The festivities are all taking place to the music of flutes. At the banquet the nobles are attired in rich garments with embroidered borders and wear garlands of leaves around their heads. They recline on couches, handsomely appointed with mattresses and cushions, watching the games and dances while slaves serve them food and drink from golden bowls. The reputed love of luxury on the part of the Etruscans and their inordinate fondness for games is well attested in the scenes depicted, as well as their liking for many slaves, whom they made much of and dressed in fine garments.

In the Tomba del Triclinio and in the Tomba del Letto Funebre, two of the finest tombs of the fifth century, the limestone walls and ceiling of each tomb were given a coat of plaster of about one-eighth to one-quarter of an inch in thickness before the artist began his painting. It is apparent that the composition of the scenes had been thoroughly determined before any painting was begun, for the final drawing closely follows preliminary lines that had been incised in the plaster. The composition was probably first studied on the wall with chalk or some other material. When the artist was satisfied with the drawing of the scenes and the elements of decoration, he incised all the outlines lightly in the plaster with a stylus, and with a straight-edge ruled the borders above and below the paintings, and the lines of the ceiling squares. The complete decoration which had been drawn on the wall in chalk was now incised in the plaster and the chalk could be brushed away.

A thin coat of fine whitewash was then applied to the entire plaster surface to serve as a ground upon which to paint. The incisions, which were easily discerned, were then followed with a fine brush in light red pigment, with occasional modifications here and there where it was felt that the drawing could be improved. The walls and ceiling were now covered with the complete decoration in red outlines upon the white ground, and the forms of the figures and objects were ready to receive the various body colors. These were applied *en bloc*, without any attempt at shading or suggesting roundness or contours. The figures and objects were thus rendered in silhouette and the background was painted a warm ochre yellow. Finally, the major elements of the decoration were outlined in black with a fine brush, but with a further modification here and there by way of improvement. The palette of the artist consisted of the following colors: yellow, light red, dark red, blue, green, and black.

In spite of the evidence that the wall surface was prepared with fresh lime-sand plaster, the technique of painting appears not to be true fresco but more nearly like what is sometimes called *fresco a secco*. The general conclusion, made on the basis of the chemical and microscopic study of the painted fragments, that the paintings were done in a water or tempera medium, is supported by observations made on the general character and style of execution.

These paintings of the fifth century are not only representative of the best Etruscan painting, but also are so closely related to Greek art that it may be assumed that at least some of the *lc*⁺ mural paintings of Greece were executed in a similar manner and with the same palette of colors.

THE ETRUSCAN LANGUAGE: HEINRICH M. HOENIGSWALD.

The problem of the relationships of the Etruscan language has been furthered, but also complicated immensely in recent times. This is mainly due to the fact that the views held by Oriental scholars about the affinities between the languages of the ancient Near East have been profoundly revolutionized. . . . Though there may now be more reason to believe that Etruscan is in some remote way connected with our Indo-European group of languages, it is too early to settle this problem, or to make it historically fruitful. . . .

But the linguistic data in themselves may be made to yield important facts bearing on the general character, history, and prehistory of the Etruscan people. . . .

After discussion of the difficulties which still obstruct the complete "decipherment" of the texts, the speaker gave a sketch of the structure of the Etruscan language. Finally, it was shown by an example taken from the geographical distribution of a certain feature, how the results of linguistic and archaeological research can support each other.

Regardless of their ultimate affinities, the Etruscans are, linguistically speaking, a foreign body of relatively recent newcomers in ancient Italy. Their dialects and local writing habits point to the probability that they entered the country by sea in at least three successive waves.

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LUCY T. SHOE, Mount Holyoke College (Architecture)
H. R. W. SMITH, University of California (Vases)
FRANCIS R. WALTON, Williams College (Epigraphy)
SHIRLEY H. WEBER, Princeton, N. J. (Numismatics)
Oriental Archaeology—JOHN W. FLIGHT, Haverford College
HENRY S. GEHMAN, Princeton Theological Seminary
CYRUS H. GORDON, Smith College
FRED V. WINNETT, University of Toronto
Roman Archaeology—ELIZABETH C. EVANS, Vassar College
GEORGE M. A. HANFMANN, Harvard University (Etruscan)
W. C. McDERMOTT, University of Pennsylvania
ROBERT S. ROGERS, Duke University
KENNETH SCOTT, Western Reserve University
MERIWETHER STUART, Hunter College
LOUIS C. WEST, Princeton, N. J.

- American Archaeology*— WENDELL BENNETT, American Museum of Natural History
H. U. HALL, Ambler, Pa. (Prehistoric)
GEORGE C. VAILLANT, University Museum, Philadelphia
- U.S.S.R.*— HENRY FIELD, Field Museum of Natural History
EUGENE PROSTOV, Iowa State College
- Christian*— FRANKLIN B. KRAUSS, Pennsylvania State College
- Mediaeval and Renaissance*— EMERSON H. SWIFT, Columbia University
FRANCIS J. TSCHAN, Pennsylvania State University

NECROLOGY

Elihu Grant died in New York, November 2, 1942, at the age of 69. He graduated from Boston University in 1898, and received the degree of Doctor of Philosophy from the same institution in 1906. He was Director of the American Friends' Schools at Ramallah, Palestine, from 1901-1904; Professor of Biblical Literature at Smith College, 1907-1917; and held the same position at Haverford College, 1917-1938, when he retired and was made professor *emeritus*. He was associated with the Tell-en-Nasbeh Archaeological Expedition, Palestine, in 1927. From 1928 to 1933 he directed the Haverford Archaeological Expedition at Beth Shemesh (Ain Shems), Palestine. He was a member of the Oriental Club of Philadelphia, Archaeological Institute of America, American Oriental Society, Society of Biblical Literature and Exegesis (Pres. 1935). Among his publications were: *The Peasantry of Palestine* (1907), *The Orient in Bible Times* (1920), *The People of Palestine* (1921), *The Bible as Literature* (1914) (co-author), *The Haverford Symposium on Archaeology and the Bible* (1938) (editor and contributor), and six volumes on the *Ain Shems Excavations* (1929-1939), the last two of which represent the definitive publication of these excavations.

J. W. FLIGHT

Lieut. Frederick Randolph Grace was born September 21, 1909. After graduation from Harvard College in 1930, he was for three years on the staff of the National City Bank of New York, but because of his interest in art and archaeology, he returned to Harvard and took the doctor's degree in 1938. He had been an Assistant and Tutor during his years of graduate study and upon the attainment of the doctor's degree, was immediately appointed Instructor and Tutor in Fine Arts. Beginning in 1940, he also served as Assistant to the Directors of the Fogg Art Museum and in this capacity showed marked executive ability. He was granted a leave of absence in April, 1942, to enter the armed forces

as a Lieutenant (j.g.) in the United States Naval Reserve, and in the performance of his duties he was killed in an airplane accident near Absecon, New Jersey, November 23rd, 1942.

Dr. Grace's death is a severe blow to the studies which are the special interest of the Archaeological Institute. He was a brilliant teacher, remarkably independent in his thinking, so that his students had the impression of joining with him in the search for truth. The same quality distinguishes his published articles and his one book, *Archaic Sculpture in Boeotia*, published in 1939. His unselfish interest in others and his coöperative spirit endeared him alike to colleagues and students.

GEORGE H. CHASE

Roy Caston Flickinger.—The death of this well-known scholar occurred on July 6, 1942. E(UGENE) T(AVENNER) contributes to *CJ.* xxxviii, pp. 1-3 (pl.), a long and appreciative obituary, giving the salient facts of his useful career. To archaeologists he is best known for his book, *The Greek Theater and its Drama*, which first appeared in 1918, running through four editions, the last of which was published in 1936. He was deeply interested in the work of the Archaeological Institute of America, serving as President of its Chicago Society from 1921 till 1925, when he transferred to the State University of Iowa. From 1925 until his death, he was President of its Iowa Society. A familiar figure at the meetings of the Council of the Institute, his executive ability and his great popularity won him an important voice in its deliberations.

GENERAL AND MISCELLANEOUS

Old Stone Age Needles.—The origin of the needle can be traced to Palaeolithic times. The University of Pennsylvania Museum has received from the Peabody Museum of Harvard University a group of Magdalenian needles of the Cro-Magnon age, made of bone, and showing little difference from modern ones. In connection with them, characteristic flint tools used in their manufacture are illustrated. The thread used was

made from the sinews of animals killed in hunting. The modern steel needle is said to be a Chinese invention (V.C.B., in *Bull. Univ. Mus.* ix, Jan. 1941, pp. 25-27, pl. X and fig.).

English Prehistory.—The British Museum reports the acquisition of collections of prehistoric antiquities from Bournemouth, Yorkshire, Gloucestershire, and Kent. The specimens from Gloucestershire are Neolithic; the objects from Kent and Yorkshire are of the Bronze Age, while the Bournemouth group contains, besides prehistoric material, some Roman antiquities (*BMQ.* xiv, 1940, p. 110).

Irish Gold Torque.—In *Burl. Mag.* lxxx, 1942, p. 152 (pl.) V. ROSKILL publishes a fragmentary gold collar, or torque, now in a private collection in England, and before that time in the possession of a family from County Cork, Ireland. It is of the so-called Tara-Yeovil class, of which some forty examples are known, and is dated in the Middle Bronze Age, or in the neighborhood of 1000 B.C. Although examples have been found in various parts of Great Britain and Brittany, as well as Ireland, their Irish origin is unquestionable. Their form is believed by some to be an indigenous Irish pattern, by others to be derived from Aegean importations, but neither theory can as yet be proven, as the dates involved would suit both, and consequently are of no help. This particular example is noteworthy, and in some details may be unique.

Celtic Lynch-Pin.—In *BMQ.* xiv, 1940, pp. 77-78, pl. XXVII, T. D. KENDRICK publishes a fine enamelled lynch-pin of the early first century A.D., found in King's Langley in Hertfordshire in 1937, and now in the British Museum. The shank is of iron, with bronze terminal mounts, the upper one of which is decorated with a crescentic ornament inlaid in red enamel. It is of Celtic workmanship, and is of a type which can be traced back to as early as the middle of the third century B.C.

Accessions of the Metropolitan, 1941.—The *Annual Report of MMA.* for 1941 (published in April, 1942) lists many objects of interest to archaeologists acquired during the year. In the Egyptian field is noted and illustrated the wooden statuette of the Lady Tuty, dated in the Eighteenth Dynasty, together with several other interesting objects; the Greek and Roman Department received, besides the outstanding purchase of the Gallatin Collection of Greek vases (a red-figured column-krater is illustrated), a number of

other accessions by gift, purchase, or bequest, of bronzes, vases, and terracottas, and a collection of gems; in the Near Eastern field, a magnificent Syrian glass bottle of the early fourteenth century (illustrated), a bronze quiver from Luristan, dated at 1200 B.C., and other specimens; and of Far Eastern art, a pair of unique Japanese screens, attributed to Sōami, a number of pieces of Chinese and Cambodian sculpture, and Chinese bronzes and paintings (pp. 24-26; ills., pp. 17, 23, 25).

Suspension.—With its number for December, 1940 (vol. xiv, no. 4), the *British Museum Quarterly* announces the suspension of its regular appearance for the duration of the war (*BMQ.* xiv, 1940, p. 115).

EGYPT

Mummy of Wah.—In *B.M.M.A.* xxxv, 1940, pp. 253-259 (4 figs.), H. E. WINLOCK describes the unwrapping of this mummy, found in 1920, and for many years on view in the Metropolitan Museum. An X-ray examination had revealed the presence of objects of jewelry on the corpse, so it was decided to unwrap the mummy, and at the same time preserve it, which was very skilfully done. The first wrapping was a shawl, placed kilt-wise about the body, under which was a series of bandages spiraling up and down the mummy. Under them were sheets, either wrapped around or folded as pads; then bandages streaked with resin, and then more sheets and pads. The removal of these revealed the full mask of the face. This mask and ten more sheets and pads were removed, when a heavy layer of resin was revealed. This, too, was taken off, with the bandages, sheets and pads underneath. At this point, four bead necklaces were disclosed, with the cords tied at the nape of the neck. One was of silver, one of gold, one of faience, and one of carnelian, agate, amethyst, and other stones. They showed from their condition that Wah had actually worn them during his lifetime. More bandages and pads were then removed, and more jewelry was found; a string of blue faience beads, and four large scarabs, one of faience, two of massive silver, and one of lapis lazuli. Cleaning of the larger silver scarab showed the presence of inscriptions, giving Wah's name as estate manager of Prince Meket-Rê. These scarabs had been in active use by the deceased, and after his death had been purposely mutilated, and strung on cords to form amulets, something that has never been found before on any mummy. It was

still, however, necessary to remove more wrappings, all heavily impregnated with resin. This revealed a broad collar of greenish-blue beads on Wah's chest, with eight matching bracelets on the wrists and ankles. All were stiff with resin, and required cleaning. These objects differed from those already found in being made expressly for the tomb. The removal of more bandages revealed a *seweret* bead of red carnelian in the palm of the hand, instead of on the throat, the normal position. Other objects that through the carelessness of the embalmers found their way into the mummy were a dead mouse, a lizard and a cricket. From this mummy no less than 375 sq.m. of linen were unwrapped, while the sheets found in the coffin, and two pieces used to cover it in the funeral procession, bring the grand total up to 845 sq.m. Many of these sheets bear hieroglyphics telling their quality, or the year of their manufacture, and eleven bear the name of Wah himself. From the data gained by these inscriptions, Wah's death has been set at ca. 2010 B.C. An examination of the body proved him to have been a man of about thirty when he died. The cause of his death is not known.

New Kingdom Tombstone.—A sculptured tombstone of the Nineteenth Dynasty, recently acquired by the University Museum in Philadelphia, is published by H(ERMANN) R(ANKE) in *Bull. Univ. Mus.* ix, Jan. 1941, pp. 20-24, pls. VIII, IX. The stele is in commemoration of a certain Shamaya, a priest. In the upper register he is seen with his arms raised in prayer before Osiris, who is seated on his throne facing right. Behind the god are Isis and Horus, while behind Shamaya are his wife and son. In the middle register are scenes of funeral rites, with priests and family in attendance, and Shamaya making offerings to his parents. The lower register is largely devoted to an inscription praying the protection of the gods for the deceased, with a relief of Shamaya receiving water from the goddess Nut, while his soul, in the form of a human-headed bird, shares in the gift. Originally, details were probably rendered in colors, but these have completely disappeared. The stele undoubtedly came from Abydos.

Egyptian Art in Pratt Collection.—In 1940 the Metropolitan Museum acquired on indefinite loan the art collection of the late George D. Pratt. STEPHEN V. GRANCSAY, in *B.M.A.* xxxv, 1940, pp. 237-240 (2 figs.), calls attention to some of the more important items in the collection. In

the field of Egyptian art (quoting WILLIAM C. HAYES, pp. 239-240) the Museum has received from this source three fine pieces of sculpture: first, a statuette of the great Steward of Amūn, Sen-mūt (illustrated), belonging in the time of Hat-shepsūt (1501-1480 B.C.); second, a fragment of a temple relief, belonging in the reign of Sethy II (1209-1205 B.C.); and third, a limestone offering table, of the Twenty-Second Dynasty (945-745 B.C.), with a long series of unusual priestly titles.

MESOPOTAMIA

Nippur.—In *Bull. Univ. Mus.* ix, Jan. 1941, pp. 9-14, pls. IV, V, and fig., L(EON) L(EGRAIN) publishes a series of objects from Nippur, in two parts. The first part is devoted to two heads of the Sumerian period. One of these, a Gudea head, lent to the University Museum by the Philadelphia Museum of Art, is comparable to one purchased by the University Museum in 1927, the body of which is now in the Museum at Baghdad. The other is a bald head, dated about 2600 B.C., in which the eyes were originally inlaid. One eye was preserved intact when found, and fortunately the head was photographed with the eye in place; since its discovery this eye has been lost. In the second part of the article, a stone plaque, originally published by Hilprecht in 1904, is discussed. It is dated about 2700 B.C., and represents a scene of the introduction of a worshipper to a seated goddess. A restoration of the entire plaque, of which this is only a fragment, is suggested.

PALESTINE AND SYRIA

The Canaanites.—In *Studies in the History of Culture* (presented to Waldo G. Leland) 1942, pp. 11-50, W. F. ALBRIGHT discusses the rôle of this race in the history of civilization. He equates them with the Phoenicians, and uses the name Canaanite to designate the northwest Semitic people and culture of Western Syria before the twelfth century B.C., while the name Phoenician is to indicate the same people and culture after this date. After a brief introduction, in which he lays emphasis on the function of the Canaanites in the transfusion of culture between Mesopotamia and Egypt, the debt of Israel to them, and their turning to the sea after the Israelite conquest, he divides this very important article into six parts.

Part I (pp. 12-15) deals with the rediscovery of the Canaanites. Phoenician inscriptions began to be collected and published in the late sixteenth

and seventeenth centuries, but real progress was not made in their interpretation through bilinguals until the middle of the eighteenth. In 1837 Gesenius laid the foundation for the modern scientific work in his *Scriptorum linguaeque Phoenicia monumenta*, which has persisted ever since, with the work of Movers, Schröder, Renan, Lidzbarski, Cooke and Harris. Excavation of Phoenician sites in Syria, begun by Renan in 1860, continued up to World War I under Turkish, French, and American archaeologists. In the period after the war, the greater part of the credit for excavation is due to the French, whose various expeditions are listed, together with campaigns by Ingholt and Woolley. The best studies of Phoenician art, however, are those of Perrot-Chipiez (1885) and Poulsen (1912). Excavations in Palestine have yielded important information regarding Canaanite prehistory.

Part II (pp. 15-21) discusses the Canaanites before the seventeenth century B.C. The writer does not deal with the origin of the Phoenicians but shows that the Canaanites may well have been settled in Palestine and Southern Syria as early as the fourth millennium—towns which can clearly be dated before 3000 B.C. have Canaanite names (e.g. Jericho, Megiddo, etc.). Material from Mesopotamia bearing on Syria does not at present antedate the twenty-first century B.C., but in Egypt the contacts can be traced back to the First and Second Dynasties, while in Palestine Egyptian objects as early as the Third Dynasty have been found. Canaanite loan-words appear in Egyptian texts of the Second Dynasty, and during the Old Kingdom, Egypt claimed suzerainty over Canaanite Palestine and Syria, until about 2000 B.C. Western Semites, called by the Babylonians Amorites (Westerners) began acts of aggression in Babylonia between 2200 and 2000 B.C., and actually founded the Larsa Dynasty in southern Babylonia (ca. 2020 B.C.). Later we find Amorite rulers in Babylon, Eshnunna, and Mari. By 2000 Palestine was dominantly in the hands of Amorite nomads, who became rapidly urbanized during the following two centuries. Before the end of the third millennium, the Canaanites had invented a syllabary of their own, based on the Egyptian hieroglyphics, and containing at least eighty characters. Inscriptions in this script have been discovered at Byblus, and a stele in Northern Moab is probably also in this writing, but it yielded soon to the Akkadian cuneiform. While the Canaanites were a hardy race, enriched by

fresh blood from the East, pressure from Egypt and Mesopotamia prevented them from developing a civilization of their own until the early eighteenth century, when the collapse of Egyptian power gave them opportunity to develop the cultural influences from that country and Mesopotamia, producing the culture called Middle Bronze II, the data for which come mostly from Palestine, although recent discoveries at Ugarit show that the centre was really in Phoenicia, with Palestine as an outlying district.

Part III (pp. 21-31) is devoted to the Canaanites from the seventeenth to the twelfth century B.C. The recent discoveries at Mari and Ugarit have proven that the Hyksos conquerors of Egypt were certainly Canaanites or Amorites, thus establishing the correctness of Manetho in describing them as "Phoenicians." Three dynastic groups of Syrian rulers in Egypt are known, one preceding the Fifteenth Dynasty, and the Fifteenth and Sixteenth Dynasties, the latter lasting not over fifty years. The best knowledge of the Hyksos comes from Palestine, which remained the focus of their power. Between 1750 and 1600 B.C., evidence shows a great series of migratory movements from the Northeast into Syria, with the result that by the fifteenth century most of northern and eastern Syria was occupied by Hurrians and Indo-Iranians, with non-Semitic groups in the ascendancy as far as Southern Palestine. This is proven, not merely by objects, but by the cranial type at Megiddo of this era. In the seventeenth century, great rectangular earthworks, definitely associated with the Hyksos, are found in Syria, Palestine, and Lower Egypt, as a defense against horse-drawn chariots, which, first introduced by the Hittites in the twentieth century, had yielded to the strong and speedy chariots of the Indo-Iranians of the late seventeenth. The Canaanites of the Late Bronze Age were a much more mixed people than their ancestors, and had far more complex cultural trends, owing partly to the expansion of sea-trade caused by the rise of Aegean civilization. Importations from Egypt and the Aegean area are constantly found. This reached a climax in the fourteenth century B.C., and then fell off, notably in the twelfth century. The excavations at Ugarit are our best source of information as to the high state of material civilization evolved by the Canaanites in this period. Sculpture was at its height in the sixteenth century, the goldsmith's art reached its peak in the two centuries following. Canaanite

works of art were imported to Cyprus and Northern Mesopotamia. It was at this time that Phoenicia became the centre for purple dye from the murex shell-fish, and for embroidered textiles. Purple is first mentioned in Nuzi documents of the fifteenth century, and the centre for its manufacture appears to have been Ugarit. The Greek name Phoenicia has been proven to come from φοινός-purple, while Canaan is a Hurrian expression meaning "belonging to (the land of) purple." Between 1600 and 1400 B.C., the balance of trade between Phoenicia and the Aegean area favored the former, as the Minoans seem to have been lacking in commercial enterprise. After the fall of Knossos, there arose a great period of Mycenaean trade expansion, from ca. 1375 to ca. 1225 B.C., when quantities of Mycenaean vases, probably originally containing perfumes and cosmetics, were imported into Canaan. This coincided with a sharp decline in all branches of Canaanite art and craftsmanship, as evidenced by the finds from Ugarit and Beth-Shan. This decline is due in part to pressure from Egypt and the Hittites, and in part to the low level of Canaanite religion and morality. Canaanite literature of the era under discussion has been partially recovered at Ugarit, and consists of mythological epics, and religious rituals and hymns. They bear a strong resemblance to Hebrew poetry, showing the immense debt of Israel to Canaan in this regard, while Canaan in turn is indebted to Hurrian models. In the Late Bronze Age, the Canaanites evolved at least two consonantal scripts, cuneiform and alphabetical, the latter the progenitor of the later Phoenician.

Part IV (pp. 31-37) is concerned with the Canaanites in the transition from bronze to iron. This is the period of the Israelite invasion, which reached its climax ca. 1230 B.C., by which time they were firmly established in the hill country of Palestine. They were closely followed by the "Sea Peoples" (the Philistines of the Bible) who, between 1225 and 1175 B.C. swept over the Eastern Mediterranean, devastating the Hittite Empire and the coast of Syria and Palestine. Defeated by Rameses III in a great battle in 1188/87, they nevertheless established themselves in the Canaanite territory in the South, while the Tsikal settled further north—a people perhaps identical with the Sikels of classical history. Ugarit and Tyre were destroyed at this time. Much of the Canaanite hinterland was overrun by Aramaeans from the Syrian Desert. This

reached its climax in the eleventh century. A conservative estimate is that at least ninety per cent of the territory they had controlled was lost by these invasions. They were, however, enabled to exploit what remained by the discovery of lime plaster, making possible the construction of cisterns for irrigation, while the forests of Lebanon, and the discovery of iron there, enabled them to build ships and arm their crews. This resulted in colonizing activity, while the racial stock was enriched by fresh blood, especially from Syrian mountaineers and peasants from northern Israel. From now on, Sidon and Byblus become the leading Phoenician states. In the Bible, and also in Homer, "Sidonian" becomes the name by which these peoples are called. Tyre was rebuilt as a Sidonian settlement. Nothing is known of Sidonian history from inscriptions, owing to the lack of deep excavations, but that of Byblus can be reconstructed for the eleventh and tenth centuries. The inscriptions found there show the Canaanite alphabet progressing towards flowing cursive. Phoenician commercial expansion in the Mediterranean did not begin until after 1080 B.C. Trade was mainly with Egypt—that with the Aegean area was still in the hands of the Sea Peoples.

Part V (pp. 37-46) is called by the author "The Phoenician Problem." This is the era of the great importance of the Phoenicians as traders and colonists. Our leading authority has been for a long time the Greek and Latin historical sources, and, owing to such solidly established facts as the Phoenician origin of Carthage, and the debt of Greece to Phoenicia for her alphabet, some scholars have attempted to attribute the origin of all Mediterranean civilization to them. The discoveries at Mycenae and later at Knossos have shown that the Aegean civilization was autochthonous. On the other hand, it is not proper, according to the writer, to hold, with such men as Beloch, that the Phoenicians had no influence whatever on Greek culture, even denying to them the origin of the Greek alphabet. Much credit in putting the Phoenicians in their proper place is due to Poulsen, who, in his *Der Orient und die frühgriechische Kunst* (1912) collected all accessible archaeological evidence for Phoenician metallurgic and glyptic art, and assigned to them objects found in various parts of the ancient world, from Assyria to Etruria, showing also that local imitations of Phoenician originals were made. Subsequent excavations have amply confirmed Poulsen's position. Recent epigraphic discoveries place the Phoeni-

cians in Cyprus and Sardinia in the ninth century, proving that there were settlements in the latter island before Carthage was founded. The colonial expansion of Sidon began in the second half of the eleventh century, while the Philistines and Tsikal were engaged in their struggle with Israel. First came Cyprus, where Citium was founded. No colonies were founded in the Aegean, but trade with the Greeks was established by temporary "factories" under local protection. In the Western Mediterranean, their earliest colonizing activities may be safely traced to the end of the eleventh century or the beginning of the tenth. Sardinia was already colonized early in the ninth century, and may well have been in the last half of the tenth (reign of Hiram I). The order would be Cyprus, Malta, Sicily, Sardinia (Nora and Bosa), Africa (Utica), Spain (Gades and Tartessus). All this was probably done by the middle of the reign of Hiram I, ca. 950 B.C. The foundation of Carthage in the late ninth century was the beginning of the end of Phoenician expansion, as the Carthaginians soon began to compete with the mother country, while the conquest of Phoenicia by Assyrian kings of the late eighth and early seventh centuries proved fatal to Sidonian independence, and the colonizing activities of the Greeks weakened Phoenician maritime power still further. In 572 B.C. Tyre was taken by the Chaldeans, after a siege of thirteen years, and thus the final blow was dealt.

The last part of the article (pp. 46-50) takes up the diffusion of Phoenician culture. The earliest examples of Canaanite Iron Age art are the Megiddo ivories, discovered in 1937, most of which belong to the first half of the twelfth century, though some are earlier. They show strong Egyptian influence. Ivories from Nimrud of the late tenth or early ninth century come next in order, closely followed by ivories from Samaria and Abu Tash, belonging in the middle or second half of the ninth century. Soon after them comes a remarkable collection from Spain, which, though at least three centuries later, bear certain strong resemblances to the Megiddo ivories. In the eighth century, the fusion of Egyptian and Mesopotamian elements produces the earlier silver bowls from Cyprus and Greece, while for the first time we find local imitations of Phoenician art, especially in Crete and Rhodes. The Saite period in Egypt was accompanied by further Phoenician adaptations, as shown in the Bernardini and Barbarini Tombs at Praeneste,

where Phoenician bowls of the seventh century appear. This is the last (and least original) phase of Phoenician art. It was in the eighth century, when Phoenician art most affected the Greeks, that the alphabet was borrowed and adapted by them. The chronology of Ullman must be rejected as too early, that of Carpenter as too late. The date is possibly the late ninth century. With the loss of their independence in the early seventh century, a literary renaissance among the Phoenicians and a renewed interest in their Canaanite past began, reaching its climax in the sixth century. The influence of this movement appears in the Bible in the Exilic and Post-Exilic ages. It is to be found in the later prophets, the *Psalms*, *Proverbs*, *Job*, and the *Song of Songs*, particularly in *Proverbs*. The writer ends his article by saying, "Through the Bible, the entire civilized world has fallen heir to Phoenician literary art."

Kh. el Mefjer.—The forecourt and east block of this Umayyad palace at the north end of the Dead Sea have now been cleared, so that the plan of the whole is evident. The forecourt, which is on the east side of the palace, was enclosed by cloisters on three sides; near one end there were the remains of an elaborate fountain which had been embellished with frescoes and images. The fourth side of the forecourt, abutting the palace, consisted of a two-storied arcade which had been roofed with wooden beams and tiles. Numerous specimens of the mosaics, frescoes and columns from the upper floor were found. The voussoirs, unlike those of the ground floor, were moulded and painted with red lines to emphasize their outlines. Bits of the ornamentation of the façade of the palace were also found, such as rosettes composed of six triangular stones and four-stepped crenellations composed of five stones. Again red outlines were used to emphasize the carving. It appears that another palace existed at this spot, the excavation of which should still further enrich our knowledge of early Moslem art and architecture (D. C. BARAMKI in *QDAP.* x, 1942, pp. 153-159).

Greek Inscriptions.—In *QDAP.* x, 1942, pp. 160-169, M. AVI-YONAH publishes six inscriptions found in Palestine. The first is the work of anti-Christian elements in Ascalon and seems to have been set up at the time of Julian's visit to Antioch in 362/3 A.D. The second is a wish for good luck inscribed on the stone in a betrothal ring. The names are somewhat unusual in form and probably come from the fourth century A.D. The

third was found engraved on a board in the El Aqsa Mosque at Jerusalem and commemorates the erection (or repair) of the Church of St. Thomas by the patriarch (note the title), Peter (who reigned from 524-552 A.D.). The fourth inscription is a sixth-century fragment from Beisan and supplies a third name of a governor of *Palaestina secunda* at that period, Fl. Zenophanes. The fifth is very similar to two inscriptions already published commemorating the repair of the wall of Beisan in the sixth century; it provides evidence that Fl. Arsenius' term of office as *dux Palaestinae* preceded that of Fl. Anastasius and should fall within the third indiction, 509-10. The sixth inscription is the name *Sochot* (Bib. Socoh) stamped on a brick. The plural form is explained by the fact that the town was composed of twin villages.

A Waqf Deed.—A document of considerable interest for Turkish and Moslem history is an endowment deed of Khâşseki Sultân, favourite and queen of Suleiman the Magnificent (1520-66), which is preserved in the Khâlidîyye Library, Jerusalem. The deed, which is the preliminary Turkish version, not the final Arabic one, is translated by St. H. STEPHAN in *QDAP.* x, 1942, pp. 170-194, pls. XXXVI-XL. It refers to the erection by the queen of a mosque and residence near the Hâram ash-Sherif, for the use of pious Moslems who might wish to lead a life of devotion for a while in the sanctuary; she also erected a public kitchen for the relief of the poor and a caravanserai for travellers. For the maintenance of these institutions she set aside the revenues from certain villages, lands, factories, etc. Detailed instructions are given regarding the appointment of officials to administer the *waqf*, their wages, the menu to be provided at the public kitchen, etc. Stephan's notes constitute a valuable supplement to the article *waqf* in the *Encyclopaedia of Islam*.

IRAN

Limestone Relief.—In the 1890's Hamdy Bey, then Director of the Imperial Ottoman Museum in Constantinople, presented to the Third Nippur Expedition of the University of Pennsylvania a head from a relief, with no indication as to the circumstances of its discovery. The late C(HARLES) B(ACHE) in *Bull. Univ. Mus.* ix, Jan. 1941, p. 28, pl. XII, considers that it undoubtedly came from Persepolis, and is a head of one of the famous Ten Thousand Immortals. It is in the stereotyped

tradition of Persian sculpture, and was probably from the Great Stairway to the Hall of Darius.

GREECE

AEGEAN CIVILIZATION

Excavations in the Plain of Lasithi II and III.—In *BSA.* xxxvii (session 1937-38), pp. 1-56 (6 pls., each of several figures; 13 figs. in text), H. W. and †J. D. B. PENDLEBURY and M. B. MONEY-COUTTS give an account of the first half of the excavations conducted on behalf of the British School at Athens in June, 1937, and also a description of the Cave of Meskine, excavated in 1938. Six sites, in addition to those mentioned in *BSA.* xxxvi, pp. 9-13, are listed where objects dating from MM III to archaic times have been found. Five further objects from the Cave of Trapeza are described (3 figs.). Near that cave were found at one place fragments of a MM I pithos and a bit of a stone axe; at another, pieces of a Neolithic vase, a handle resembling "Trapeza Ware," some EM sherds, and a few Byzantine sherds; at another, sherds ranging from Neolithic to MM I, a few sherds of LM I, and remains of a LM I larnax to which pertained several vases and some beads, and at still another place pottery of MM I and LM II date and a seal (EM II) already published.

The Cave of Skaphidhia is in a line of cliffs in which many caves occur, about 1.50 km. north of the village of Tzermiadho. This cave was some 4 m. x 2 m., and nowhere more than 0.70 m. in height. In it were found a small EM suspension pot, sherds of Late Neolithic date, and "Trapeza Ware," and many bones, a few of which were human. The cave was evidently used as a burial place in Neolithic times. There were not more than two burials.

The Cave of Meskine (The Leper), some 400 m. east of the Skaphidhia cave, is about 21 m. long and 2 m. wide; its height varies from nearly 2 m. to 0.40 m. In it there were found only three Neolithic sherds, other sherds of MM I and MM III dates, remains of a MM I pithos, and human bones. An iron nail is probably modern. The cave was used as a rock-shelter for a MM I burial and probably for further burials of MM I and MM III times.

The Kastellos Tzermiadhou, "about ten minutes" east of the village, is a bold bluff rising about 320 feet above the plain. The summit of the hill has been largely denuded, and the plan of no complete town was recoverable. Sixteen

test pits were dug at various points, and every building that was found was cleared.

The Cave of Trapeza was used as a dwelling place by the Neolithic inhabitants and the makers of "Trapeza Ware," but certainly by EM II the cave was used only as a burial place, and it was so used throughout EM III. Those who dwelt in Trapeza used the smaller cave as their burial place. The amount of "Trapeza Ware" found on the Kastellos shows that before the ware ceased to be made the makers had settled on the site. The settlement to which the EM II-III burials at Trapeza belonged was on the Kastellos. The site was occupied in MM I, to which MM III succeeded immediately, for MM II does not exist here as a period, the few vases of this style being evidently imported. In the LM I period the site seems to have been practically deserted; the inhabitants moved down into the Papoura in the plain. In the Intermediate Period, between the Minoan and the Geometric, the low-lying sites were abandoned for the peak of Karphi, but in the Geometric Period the population moved down again, and by archaic times the Papoura and its suburbs formed a thriving city.

The objects found at these sites are fully listed and described, with many illustrations. The Neolithic pottery, almost entirely mere sherds, was mostly burnished, occasionally incised or punctated. It all seems to belong to the Late Neolithic period. Eleven examples are listed. Of "Trapeza Ware" specimens were found in the Skaphidhia Cave and in many parts of the Kastellos. Fourteen are listed and described. It is still impossible to restore any vessels of this ware with certainty. EM I ware is represented by one small suspension pot from the Skaphidhia Cave and a few sherds from the Kastellos. Nor was much EM II pottery found, though several test pits on the Kastellos yielded sherds, and a few sherds were found near Trapeza. None was of real Vasilike ware, though fragments of jugs in the local imitation occurred. Practically none of the pottery from the neighborhood of Trapeza or from the Kastellos is certainly of the EM III period, though some sherds are probably to be dated between EM II and MM I. No whole pots of the MM I period were found. Pithos burials were evidently numerous, and nearly all the tests on the Kastellos yielded fragments of this period. Evidently there was a large population there. No pottery like the "Palace Style" of MM II was found. In Lasithi the development

between MM I and MM III seems to have been continuous. Of some sherds it can be said only that they are MM, of others that they seem to be later than MM I but earlier than MM III. Tripod legs, sherds of pithoi, and cups are all difficult to place. Sherds of this time are numerous, having been found in almost all tests on the Kastellos. MM III sherds occurred in all tests on the Kastellos, but evidently the regular occupation of the site ended with this period. Most of the pottery is coarse, much of it hand-made. Fine ware is seldom found. The only distinguishable design is on a jug and consists of traces of spiral decoration in white paint. The chief shapes are bowls, dishes, tripods, lamps, cups, jugs, jars, and pithoi. Seven fragments have inscribed signs of triangular shape; one has two incised lines which may represent an inscription. Very little LM pottery was found in 1937, and most of it is so incomplete that it cannot be assigned to any subdivision of the period. Nothing can be definitely assigned to LM I, and the Palace Style of LM II is certainly unrepresented. Some 20 m. east of the Trapeza Cave remains of a LM III larnax burial were found. The larnax stood on four feet and had a gabled lid. With it were found fragments of a bowl, two or more stirrup vases, a stemmed goblet, a dish, and several small cups. Some 40 m. to the west a stirrup vase, attributable to LM IIIb was found. Several archaic sherds, mainly from pithoi, were found on the Kastellos.

Bronze objects were a scraper and a curved knife, found on the Kastellos, and a double axe which was bought.

The Stone Work listed includes thirteen vases, mostly in fragments, and six lids of vases. None of these was of the EM period; several vases may be dated in MM I, but most of them belong to MM III. Stone tools include parts of two axe-heads, several whetstones or hones, part of a pestle, fragments of obsidian blades, several pounders, and a blade of red chert, either an awl or a small lance-head.

Two clay figurines of animals, one very fragmentary, were found in a context of EM III-MM I sherds. Miscellaneous objects include beads, loom-weights, whorls, and a conch shell.

In the same volume of *BSA.*, pp. 57-145; 29 pls.; 3 figs., the same authors, with the assistance of others, give the third part of *Excavations in the Plain of Lasithi*, with the subtitle "Karphi. A City of Refuge of the Early Iron Age in Crete."

The site of Karphi, comprising Karphi proper,

Mikre and Megale Koprana, was discovered by Sir Arthur Evans, who cleared one of the tombs at Ta Mnemata in 1896. In 1937 the Temple on the saddle and two tombs at Ta Mnemata were excavated. In 1938 six more tombs were cleared at Ta Mnemata and a group of four at Astividhero, 51 rooms were excavated at Karphi, and the whole hill was purchased. In 1939 the last nine tholoi at Ta Mnemata were excavated, and by the end of the season about one-third of the whole site at Karphi was cleared. Further excavation seemed likely to add little knowledge, to be expensive, and the work was therefore ended.

The plain of Lasithi lies towards the eastern end of Crete, about 2800 feet above sea level, and is surrounded by mountains. In antiquity it was thickly populated, and many tracks connected it with the outside world. Above the west end of the north side the great hill of Megale Koprana rises some 1300 feet above the plain, and behind this are Mikre Koprana and Karphi, of about the same height. Several routes approach the site, and there are several springs near it, but probably rain-water and snow were collected in ancient, as in modern, times. The population of the city must have been nearly 3500.

Roads in the city are carefully paved, but outside they are mere tracks. Houses were built of the hard local limestone, with no foundations. The stone was seldom dressed, as it split easily by levering. Large and small blocks were used together. Door jambs tend to be well shaped, and thresholds are often raised to keep water out. No mortar seems to have been used, and often the floor was left rough, with the rock projecting from below. Wooden columns must have existed, but no trace of them remains, or of the large beams which must have rested on them. Only two column bases, both square, were found. The roofs were flat, with heavy rafters supporting planks, brushwood, stone slabs, and δωματόχωμα, a term which is not explained. Since the city was much terraced, step-ladders and other means were used to enter houses. No wall is preserved to such height as to show traces of windows, and there may have been none. The tombs were built of the same local stone as the houses, but the stones were on the whole larger and better split.

Some houses were entered in Minoan style from a long side, others were of the megaron type and were entered from a short end. The Temple had a large court, the north wall of which, if it ever had one, has fallen over the cliff. An altar

stood almost on the edge. At the south end is a broad ledge on which the cult statues must have stood. In the southwest corner, steps lead up to further rooms, in one of which a clay statue of a goddess, with upraised hands and wearing a head-dress on which are birds, was found. A second similar goddess and a clay plaque with a human head in relief were also found in the Temple. Several rooms or buildings seem to have been dependencies of the Temple. The largest building on the site, "The Great House," consisted originally of only one room, but in its final form it was a complete Homeric house, with prodomos, megaron, and several other rooms. It undoubtedly belonged to the ruler of the city. The next largest house, "The Priest's House," had direct access to the Temple and had a room which was entered only from the street, and in which cult objects were found. In another house there was a bread-oven. A group of houses has been recognized as the Commercial Quarter; there was also a Public Square which was connected with another similar open space. Most of the rooms or buildings of the city offer little of special interest. The Vitzelovrysis Spring, with its ancient and modern walls, channels, etc., is described and illustrated.

The tombs fall into two groups; the first (17 tombs) at Ta Mnemata, the second (4 tombs) at Astividhero. They are all wholly or partly free-standing tholoi. Some have a dromos, some have a projecting entrance, all but five are rectangular at the base. How the transition from the rectangular base to the circular vault or dome was effected we are not told. Only one tholos is circular outside as well as inside. They are all small. So far as we are informed, the highest vault was "over two metres," the lowest only "some 60 cm." Apparently no mortar was used in their construction. The free-standing tholos has been found nowhere except at Karphi. For successive burials the capstone was removed and the remains were lowered to the floor, for the doorway was blocked with large stones. Grave-robbers also entered through the top. Several methods of interment appear to have been used. "Practically every single type of object found in the tombs has been found in the settlement and *vice versa*. The exceptions to the rule, such as kalathoi, which have not yet been found in a tomb, are clearly pure chance. Even the deep bowls or kraters which are so confidently claimed as being purely 'settlement furniture' are found in the cemetery."

Objects found are of various materials. Gold and silver are almost completely absent, and iron is rare. When the inhabitants deserted Karphi, they must have taken their valuables with them. Much bronze was found, tools, weapons, and some miscellaneous objects mainly in the city, small ornaments equally distributed between the city and the tombs. Rings, spiral rings, a drop-pendant, metal discs, fibulae, long pins and four shorter ones, two needles, a disc-headed pin, rods, awls, two saws, two small chisels, a tool which may have been an engraver, an adze, tweezers, a razor, knives, sickles, daggers, part of a curved sword, a spear-head, two arrow-heads, nails, rivets, and parts of tripods of bronze were found. A fine plaque is decorated with a carefully incised pattern which consists of two rows of panels, some with a simple linear design filled in with dots, the others with a series of running spirals fringed with dots. Two votive double-axes show that Minoan cult survived at Karphi. Nearly every room in the city furnished small fragments of bronze. There were few objects of iron and lead.

Stone-work of fine quality is rare, and the best specimens belong to times earlier than the foundation of the city. Stone vases found are ascribed to EM III (1), MM I (7), and the Intermediate Period, to which the city belongs (13). Stone implements include pounders and rubbers, pestles, a palette (bought), whetstones, a pointed implement, and neolithic axes. There are various miscellaneous objects of stone, one a green steatite disc inscribed with "roughly cut linear signs which suggest a debased form of the Minoan script." Of obsidian, two blades, a small core, and a chip, all black Melian, were found.

Of bone, a number of well preserved objects were found in the city and the tombs. They comprise pins (some decorated), lids, handles, and bobbins. Spindle whorls of clay and stone and a few miscellaneous objects were found. Two well cut seals, one of them a lentoid gem of red jasper, engraved with a crouching lion, were probably heirlooms. Both may be dated in LM IIIb. A single fragment of greenish blue faience, several fragments of worked wood, and eight beads of varying shapes and materials, a few shells, boar's tusks, a piece of a bull's horn, and red deer's horns complete the list of objects.

Karphi belongs to the Intermediate Period between the Minoan and the Geometric. People from the plain settled here not far from 1100 B.C. and left the site in peaceful, leisurely fashion not

far from 900 B.C. Both architecture and objects found show a mixture of origins. The tholoi are obviously Achaeans. A combination of all the material indicates "a Minoan population ruled by a small caste of non-Minoan origin," probably Achaeans. About 1100 B.C. (or slightly later) Crete was invaded by a people whom we may call Dorians. They found a Minoan population ruled by a small caste of Achaeans, now nearly absorbed into the older race. When the invasion took place, this mixed people took to the hills, and Karphi was the largest and richest of the "cities of refuge" then founded, "evidently the centre of the old regime." For nearly 200 years this state continued. Then, when things were calmer, the population went down to the plain, and by 900 B.C. Karphi was deserted. This is theory, but seems reasonable.

The volume closes with a Register of Buildings and Tombs and an Index.

The Acropolis Treasure from Mycenae.—In *BSA*. xxxix (session 1938-39), pp. 65-87; 3 pls.; 2 figs., HELEN THOMAS discusses the small group of gold objects, found in 1877 just south of the Grave Circle at Mycenae. The place where they were found seems to have been a shaft grave, partially destroyed when a drain was built. No human bones were found in it. There are four gold two-handled goblets with dog's heads on their handles. The goblets and heads are compared with other objects of Minoan and Helladic origin. A small gold cup is similarly discussed. Twelve spirals of gold wire (and some fragments), five plain gold rings and one silver ring cannot have served as personal adornments and may have been used as currency media or bullion in portable form. Seventeen gold beads (Schliemann mentions only fourteen), with rows of large granulations, were probably strung with other beads of less valuable material to form a necklace. A small couchant lion of solid gold, mounted on a thick curved base, is a masterpiece. It probably served as a handle of a vase. A large gold ring with a cult scene on its bezel and a somewhat smaller gold ring with bull's heads and other cult objects on its bezel complete the treasure. All these objects have been published more than once, but never so well as here, and the treasure as a whole has not been so thoroughly discussed. The LH II character of the treasure is unmistakable, and probably it belongs to the early part of that period. Provisionally, the theory may be accepted that the treasure "is part of the furniture of a shaft grave,

plundered by robbers and then temporarily concealed in its original resting-place."

Report on the Lesbos Charcoals.—In *BSA.* xxxix (session 1938–39), pp. 86–89, HELEN BANCROFT reports that the charcoals found at Thermi by Miss Winifred Lamb (who furnishes introductory remarks) represent: (1) oak, (2) a dicotyledonous wood (oak or sweet chestnut?), (3) a dicotyledonous wood, probably olive, (4) a dicotyledonous climbing plant, perhaps *Salacia*, (5) grape vine, (6) a coniferous wood, probably pine, (7) a dicotyledonous twig, perhaps buckthorn.

GENERAL AND MISCELLANEOUS

Ithaca.—In *BSA.* xxxix (session 1938–39), pp. 1–51; 24 pls.; 23 figs., SYLVIA BENTON, under the heading "Excavations in Ithaca, III, The Cave at Polis, II," gives a catalogue of pottery ranging in date from Early Helladic times to the first century B.C. Examples of Rough Pottery, including "Pellet Ware," which may belong to either the early or late Bronze Age, number 33. There are 20 examples of Early Helladic wares and 24 of Middle Helladic, including those of a deposit called "P first hole," where the levigated sherds resemble C Macedonian ware, and there is a little rough pottery. There is very little Mycenaean pottery which could have been imported from the Argolid, a little which closely resembles Mycenaean ware but may be home-made, a great deal which has Mycenaean qualities but is regarded as local. All these furnish 72 specimens. Five specimens are called Transitional, and five are Proto-Geometric. Of the Geometric pottery 18 specimens are classed as Ithacan; 3, of dark red clay, as of uncertain origin. The pottery of Corinth includes Geometric and Proto-Corinthian (23 specimens), Corinthian, seventh-fourth century B.C. (74 numbers, one of which includes three black glaze vases not certainly Corinthian). As East Greek Pottery, three rims of Proto-Geometric or Geometric bowls and ten examples of Rhodian wares are listed. There is one Laconian aryballos, also the top of a faience oinochoe of uncertain origin. Of Attic ware (sixth-fourth century B.C.) there are 29 examples. A fragmentary white lekythos is painted by the "Beldam" Painter. Hellenistic wares are well represented by 63 numbers. On a black glaze saucer is the inscription $\epsilon\kappa\upsilon\epsilon\iota\varsigma$; on a bowl of "West Slope" ware $\text{N}|\upsilon\mu\phi\phi|\varsigma$; and a plate is inscribed $\text{N}|\upsilon\mu\phi|\alpha|\varsigma$. Plastic bowls are decorated with leaves and other designs. Two inscriptions are listed. One, on a

pithos fragment, reads *Epaphroditus Novi, ungentarius de Sacra Via, hic fuit k. Oct. quo anno L. Cornuficius Sex. Pompeius cos. fuerunt.* The date is 35 B.C. "Among a lot of scribbles" on a similar sherd, *EROS LIBONIS.*

In the Catalogue of Terracottas 69 items are listed. Geometric is a fragmentary sphinx. About a dozen standing grotesque figures are primitive. Archaic figures, for the most part fragmentary, including a relief and three masks, number 25. Classical terracottas, also mostly fragmentary, number 23. A classical relief represents Paris, Hermes, Hera, and Athena. In the Hellenistic Age there was a mass production of masks in Ithaca. Of these there are three varieties: the Artemis type, the Earring type, and the Circlet type. Of the first (Artemis with crescent on her head) there are about 50 examples, of the second (a head with hair dressed over a fillet and wearing earrings in the form of a rosette with pendant) also about 50. One fragment is inscribed $\epsilon\upsilon\chi\eta\nu$ 'Οδυσσεῖ and $\left[\begin{array}{c} \delta \Delta\epsilon\iota\nu\alpha \delta\nu\epsilon\theta \\ \kappa\epsilon \end{array} \right] \nu$. There are about

30 examples of the Circlet type, "a pleasant face deriving from Praxiteles." All wear a circlet. There is a relief of three draped female figures, one seated and larger than the other two. Originally there were probably five figures, nymphs, in a cave with a wall in front. A round, flat relief shows nymphs dancing in a circle round a flute-player. Part of a similar relief shows a dancing nymph. Other reliefs are two portrait heads and a head draped with vines.

There are only about twenty lamps. One, wheel made, may be Attic work of the fourth century. Nearly all the others are plastic and much later. Six scarabs are listed, one of which, "Melian," is rough work of about 700 B.C. Three are of blue faience. On one, of sard, five worshippers approach a figure of Athena standing, with shield and spear, on a pedestal. A very small ivory figurine of rough work represents Herakles.

The catalogue of coins contains 29 numbers. Silver coins are four staters and a drachma of Corinth and a drachma of Sikyon. Bronze Greek coins are two of Sikyon, three of Patrai, one of Epiros, two of Athens, two of Amphilochian Argos, one of Vibo Valentia, two of Kranea, one of Melos, one of Rhegion, two of Corcyra, and one of Akarnania. Roman coins are two of Uncia, two with heads of Antony and Octavia (Zakynthos?), and two coins of Constantius. These two fourth-century coins are the latest objects found in the

excavation. Louisos is said to have found a large hoard of coins, among them silver coins of Aegina, Sikyon, Phokis, and Thebes. Bronze coins said to have been found in the sea opposite the cave are from Patrai, Dyrrachion, Damastion, and Chios (one each) and two coins of Antony. Three other late coins of Chios, two bronze and one silver, are said to have been found in Ithaca.

The Date of the Cretan Shields.—In *BSA*. xxxix (session 1938–39), pp. 52–64; 1 pl.; 2 figs., SYLVIA BENTON discusses the date of the Cretan shields (see Kunze, *Kretische Bronzereliefs*), comparing them with many other works and many other works with one another. Her conclusion is that “the shields should be dated from the end of the first to the beginning of the last quarter of the seventh century B.C. They are a Greek industry, and at first carry on the tradition of the gold bands. They fall more and more under the influence of foreign models.” Miss Benton uses this conclusion to date some other works, among them the Barberini cauldron.

Greek Bronze Plates.—The history of Greek bronze vases has not yet been written. U. JANTZEN, the author of *Bronzwerkstätten in Unteritalien und Sizilien*, has set himself the task of collecting and discussing thirty-two bronze plates, of most of which the handles only are preserved (*AM*. 63/64, 1938–39, pp. 140–155, figs. 1–3, pls. 25–48). The handles can be assigned to plates on account of their flat surface. The decoration, with the exception of some small circles in the center and some bead moulding at the edge, is restricted to the handles. They consist of palmettes, which begin at the end of the seventh century, snake foreparts in the sixth century, horses and Pegasi protomes in all periods, with the exception of the last of the five chronological groups into which Jantzen has divided the plates. The unique plate in London (No. 30), to which one handle in Naples belongs (fig. 2, pls. 40–41), has two sleeping Gorgons on the handles and at each side an Old Man of the Sea, ending in fish-tails. Jantzen had attributed it to a workshop in Kroton, but only the provenience from Southern Italy in general is attested. Most of the other plates come from Greece, and almost all have been found in the great sanctuaries of Athens, Olympia, Delphi, Dodona, Heraion of Argos, etc. Only three come from southern Italy, and none from the islands. Most of them are probably votive offerings, and they belong to the sixth century, with a few as early as the end of the seventh and as late as the beginning of the fifth century.

To the short bibliography for Greek bronze vases by Jantzen (p. 140, note 1) should be added: David M. Robinson, *Excavations at Olynthos*, x, Metal Finds, pp. 181–246, pls. XXXVII–LXV.

The Thesmophorion in Athens.—In *Hesperia*, xi, 1942, pp. 250–274, O. BRONEER reexamines the evidence for the location of the Thesmophorion. He finds that Aristophanes' *Thesmophoriazousai* provides no evidence for placing the Thesmophorion on the Pnyx; the mention of the Pnyx in line 658 refers to the assembly of the women, not to the hill. The assembly was held in the Thesmophorion, and the identification of the East Stoa on the Pnyx with the Thesmophorion is by no means fully substantiated by the archaeological evidence. The sanctuary is rather to be sought on the North Slope of the Acropolis, where (in contrast to the Pnyx) many very old cults were located. Broneer argues that the Thesmophorion, related closely as its cults were to those of the Eleusinion, was really a part of the Eleusinion, or identical with it. In this connection he publishes (p. 265) a new decree of the deme Melite in honor of a priestess of the *thesmophoroi* which tends to uphold his view and to suggest that many different divinities had sanctuaries in the Eleusinion. — The East Stoa on the Pnyx is left without a tenant.

Kerykeia.—The Greek word Kerykeion, according to Herodotus (ix, 100), and Thucydides (i, 53), designates a certain staff as an attribute of the heralds and messengers. JOHANN FRIEDRICH CROME has published and discussed a dozen bronze kerykeia (*AM*. 63/64, 1938–39, pp. 117–126, figs. 1–2, pls. 17–20). The first four are from Magna Graecia and belong to the fifth century. The two intertwined branches end as the heads of snakes. This decoration is also found in later times. But besides that, we have many kerykeia ending as the heads of goats, an excellent one being in the Museum of Fine Arts in Boston. A unique kerykeion from the Acropolis (in the National Museum of Athens) is the work of a great artist of the early classical period. Here the goats' heads are replaced by heads of Pan, similar to the head of Pan on the vase in Boston (Beazley, *Der Panmaler*, pl. 2). Both are testimony for the acceptance of the Arcadian god in Athens after his help in the battle of Marathon (Herodotus vi, 105). This Athenian kerykeion may have been the attribute of a statue of Hermes or a votive offering to him. From him, the messenger of the gods, the staff has been transferred to mortal heralds.

SCULPTURE

Archaic Sculptures in Athens.—NIKOLAOS I. KYPARISSIS and ERNST HOMANN-WEDEKING publish three kouroi and one kore (in *AM.* 63/64, 1938-39, pp. 156-162, pls. 49-64), which have recently entered the National Museum of Athens (as Nos. 19.3858-3860). One torso is from Markopulo; the others are from the "Theseion," to which the one kouros with his head preserved and the Kore had come at Moschato. All four date from the first half of the sixth century B.C.

Notes on Sculptures in the Acropolis Museum.—In *BSA.* xxxix (session 1938-39), pp. 99-105, C. KAROUZOS ascribes the "finest of all archaic Attic reliefs," the well-known diskophoros, (*Nat. Mus.* 38), to the "Rampin Master," to whom Payne had ascribed the Rampin rider, the peplos kore 679, and the head 654. The new ascription is supported by comparison with those and other works. The relief must have been made not long before the middle of the century, perhaps a little earlier than the head 654.

The master of the head 632 (Payne, *Archaic Marble Sculpture from the Acropolis*, pls. 5, 6) is ascribed to the same hand as the Volomandra kouros, or at least to the same workshop, and the ascription is supported by comparison with other works of the same period.

The rehabilitation of the kore 683 (Payne, pl. 59), which has been little appreciated and much misunderstood, is accomplished by comparing it with other works of the same period. Its date is not far from 520 B.C.—especially as concerns the drapery. It is clearly not Attic or Ionian, and must be the work of a Sicyonian, or at least of a North Peloponnesian, trained primarily to work in bronze. It may even have been dedicated by a Sicyonian (cf. *I.G.* i, 64).

These three brief notes are dedicated to the memory of Humfray Payne.

Portrait and Type of Alexander the Great.—The monographs on the portraits of Alexander the Great by Schreiber and Bernoulli are out of date. KURT GEBAUER, a pupil of Ernst Buschor in Munich, has therefore set himself the task not only of collecting all the ancient representations of Alexander, but also of investigating the question: in the period of Alexander, how do portrait and type come to a parting of the way? In his paper (*AM.* 63/64, 1938-9, pp. 1-106, pls. 1-16), Gebauer starts with the coins of Alexander, these being a continuous series of original documents.

He bases his investigations mostly on the research of E. T. Newell in this field. Using only the best coins, Gebauer describes the changes in the head of Herakles under the influence of the likeness of Alexander. He differentiates between the style on the mainland and in the East. The development leads from classical style to the greater realism, unrest, and ideal elevation of the Hellenistic period. Then the pure portrait of Alexander or of his successors takes the place of the hero on the coins of the Diadochi. The golden medallions from Tarsos and Abukir, the latter of which has been wrongly suspected, are still based on the Hellenistic tradition. There follows a discussion of the numerous Hellenistic and Roman gems with the portrait of Alexander, and of the later cameos.

The discussion of the sculptured representations of Alexander does not begin with authentic monuments like the Azara herm, but with the most frequent group of Alexandrine portraits, incompletely collected by Schreiber, to which Watzinger (*Expedition Sieglin* ii, 1B) and Lawrence ("Greek Sculpture in Egypt" in *JEA.*, 1925, pp. 179 ff.) have added much material, without, however, having organized it as Gebauer tries to do. He discusses them in seven groups, which, however, do not form a chronological sequence. All these heads are mostly sketchy, youthful, pathetic in expression, soft in form. A small wooden statuette in the Louvre (pl. 5) may give us the type of statue to which many of these marble heads belong. Most of them were probably worked in soft limestone. One of the best in the group is the head in Cleveland, published by Gebauer in Arndt, *Porträts*, pls. 1201-02.

Portraits of Alexander from all other provinces are treated together; first the originals, beginning with the sarcophagus of Sidon, including the Alexander of Priene, the large head from Pergamon, and the Alexander from Magnesia; then the copies. These begin with the Azara herm and related monuments, and the youthful portraits, attributed to Lysippos. There follows the mosaic of the Casa del Fauno, copied from Philoxenos, the Erbach type and Alexander Rondanini, attributed to Leochares, and many scattered types, ending with the baroque Roman Alexander of Gabii in the Louvre and a bronze statuette from Grado.

A catalogue of fifty-seven gems and eighty-three sculptured portraits, with careful references, is added.

A Late Copy of the Portrait of Plato.—In

addition to the sixteen copies of the portrait of Plato by Silanion, collected by Boehringer (*Plato, Bildnisse und Nachweise*), a new fragmentary replica has been found, in the Tower of the Winds at Athens (TOBIAS DOHRN, *AM.* 63/64, 1938-39, pp. 163-170, pl. 65). It is of the period when the interest in Plato was revived by Plotinus, who died in the year 270 A.D. Its nearest parallels are a head in Solin (Dohrn, *ib.*, pl. 66), and other heads of the period between Gallienus and Constantine (L'Orange, *Studien zur Geschichte des spätantiken Porträts*, pp. 37 ff., pls. 98-107). To the original conception of the fourth century, the late copyist has added the spiritual tension and formal rigidity of his own time.

VASES

Orpheus Among Animals.—The Thracian singer Orpheus playing the cithara and surrounded by listening animals appears frequently on mosaics and other Roman monuments, but is very rare in Greek art. Up to now, the only known Greek picture was on an Apulian vase in Naples (No. 1978, *MonInst.* viii, pl. 43, 1), of about 350 B.C. A small Boeotian plate of about 500 B.C., in the possession of the late OTTO KERN, shows in a sketchy, late black-figured style, Orpheus seated, holding a cithara with four strings; behind and beside him are five birds, on branches, and a doe. It is about contemporary with the poem of Simonides (E. Diehl, *Anthologia Lyrica*, p. 75, fragm. 27, ii'; Ulrich von Wilamowitz, *Pindaros* 393), which is the oldest literary mention of the story of how the lyre of Orpheus influenced even animals (OTTO KERN, *AM.* 63/64, 1938-39, pp. 107-110).

INSCRIPTIONS

Cleisthenes of Sicyon.—MALCOLM F. MCGREGOR, in *TAPA.* lxxii, 1941, pp. 266-287, gives a very interesting and convincing account of the career of this tyrant, whose life has never been properly analyzed. Much space is devoted to the wooing and marriage of his daughter Agariste, and the account of Herodotus, rejected as fanciful by many scholars, is accepted. In clearing up some of the doubtful points, an inscription, not earlier than 567 B.C., found by Blegen at Nemea (*AJA.* xxxi, 1927, pp. 432-433, fig. 10) is of great help, and enables the writer to set up a very convincing chronology. Much stress is laid on Cleisthenes' connection with the Olympian and Pythian games—about 574, after having been rebuffed at Delphi, he set up Pythian games at Sicyon—

while it is established that the Isthmian and Nemean games were set up in opposition to tyranny—the Isthmian to celebrate the fall of the Cypselids and the Nemean as a defence of himself. A chronological table follows the article.

Sixth-Century Inscription from Attica.—In *BSA.* xxxix (session 1938-39), pp. 90-93; pl., L. H. JEFFERY publishes an inscription found in 1939 between Anavyssos and Phoinike, in the ancient deme of Anaphlystos. It is a rectangular block inscribed on two adjacent faces. The narrower face (A) contains a two-line inscription, apparently metrical, written boustrophedon, beginning left to right:—οἰονίχης μάνεθ[εκε - - - -]ς ἡδρύσατο, apparently a dedication. On the wider side are six names, all written from left to right: ἡερακλείδης | (·)·ψόντες | ἀρίσταρχος | (χ)σενοκλῆς | σπινθήρ | (ξ)στυχός. (Δεμοκλῆς?) They read vertically. The four sides were once smoothly dressed; the top and bottom are rougher. All surfaces are much pitted by weather, and the edges are rounded. The inscription on A may be complete if we can read [Οἰονίχης μάνεθ[εκε καὶ] ἡδρύσατο, but that involves much crowding of letters. If the stone was a herm, it must have been re-used soon after its erection. Other possibilities are suggested. Face B is the earliest Attic example of a separate name-list. The two inscriptions seem to be contemporaneous, but have no apparent connection. It is difficult to see why a list of names should be made to run vertically or what the list signifies. Possibly there were more columns of names. The date seems to be about 540 B.C.

Athenian Tribute Lists.—Under the title, "Studies in the Athenian Tribute Lists, III" (I and II are in *CP.* xxxvii, 1942), STERLING DOW, in *TAPA.* lxxii, 1941, pp. 70-84, discusses the assessments ordered under the influence of Cleon in 425/4 B.C. He examines again the epigraphical evidence presented by Meritt and West in their publication of the inscription, in four sections: (1) gaps between panels, in which he takes issue with some of their conclusions, while agreeing with others; (2) the ending of the list, where he attempts to clear up a point left vague by the previous publication; (3) gaps between fragments, where he shows that lacunae, with only one exception, are irreducible; and (4) the Athenian claims in 425/4, in which the number of cities assessed is increased from 378 to ca. 407, of which some 66 are not known on any extant tribute record, and which would include all cities which in

the past had ever been assessed. It was to enhance Cleon's prestige among the Athenian masses that this enormous list was compiled. For epigraphical methodology, the writer discusses indentations and blank spaces in lists, and proposes a principle governing the lengths of columns.

Greek Inscriptions from Agora.—In *Hesperia* xi, 1942, pp. 230–249, W. K. PRITCHETT publishes 19 inscriptions from the Agora. Among them are a proxyen decree possibly mentioning the accuser of Socrates, another decree to add to the many already known to have been proposed by the demagogue Stratocles (*fl.* 307–301 B.C.), an inventory of the shrine of Asclepius, and a base dedicated by that Syndromus who is prominent in epigraphical records of the Augustan period. More consequential than these, however, are three inscriptions in honor of prytaneis, one of which (no. 43) preserves an almost complete list for 367/6 B.C. This enables Pritchett to draw up the most extensive table yet published of the representation of any of the Athenian tribes, with figures for various years from 408/7 to 191/0 B.C.

Greek Inscriptions.—In *Hesperia* xi, 1942, pp. 275–303, B. D. MERITT publishes 17 inscriptions from the Agora. They include some fragments of treasurer's accounts of the last year of the Peloponnesian War, a fragment of a decree bearing on the history of the years ca. 301 B.C., a decree of orgeones of the first half of the third century B.C., a small bit from the well known list of contributors of the year of Diomedon, and a decree (dated 148/7 B.C.) of the Eumolpidae praising one of their number who had been appointed hierophantes. Four *addenda et corrigenda* relate to inscriptions previously published in *Hesperia*; there is a particularly full treatment of two families of ephebic officials important for chronology.

Notes on Attic Prosopography.—In *Hesperia* xi, 1942, pp. 304–313, A. E. RAUBITSCHKE publishes 25 notes on Athenian personages of various periods, together with considerable data on their relatives, the inscriptions mentioning them, and relevant matters. The starting point in nearly every case is a new reading and/or restoration made by the author.

Inscriptions from Beroea.—In *BSA*. xxxix (session 1938–39), pp. 94–98, pl. containing 6 figs., J. M. R. CORMACK publishes fourteen inscriptions from Beroea (No. 2 is from Μπραινάταις, No. 14 from Τουρκοχώρι, three km. N.W. of Beroea) examined, with others, in 1936. Nine of them accompany reliefs. All are Hellenistic or Roman.

1. Relief: tree, along trunk and branch of which a serpent coils. At foot of tree, small boy; then man wearing cloak and shaking hands with another man similarly clad. Between them another boy. Γαυάν[η] Γαυάνου | Παλαμάνδρω Γαυάνου | ἥρωσιν.

2. Funeral stele with gable. Relief: l., standing man wearing short military tunic and cloak; Phrygian cap on head; in left hand two spears. Behind and to r., forepart of horse. In front of horse to r., boy holding bridle with r. hand. Behind boy to r., forepart of a colt. Ἀμύντας | — τωνος.

3. Upper part of stele with gable, with acroteria and with circle in pediment. Ἀδαίω Φιλίππου | Φιλίππει Ἀδύμου | Ἀδύμω Ἀδαίου | ἥρωσι.

4. In house on the road from Ράχωβα to the Κοζάνη road. Fragment of top of a columnar grave-monument. Περδίκας | Λάου | ἥρω[ς].

5. Relief: Apollo Citharoedus holding cithara in l. hand. To his l., almost under the cithara, small male figure facing god, r. hand lifted and extended. To god's r., tree, below which a dog, sitting on his haunches and facing the god. Φιλίππος Ἀπολλωνίου | Ἀπολλωνι Λυκίω.

6. Grave stele, damaged. Relief: l. to r., veiled, draped female sitting on stool, facing r., chin on r. hand, l. hand in lap. Before her, small female figure holding pyxis. Third from l., small male figure clad only in chiton. Next to r., small figure of indeterminable sex, facing the last figure to r., a seated draped female figure facing l., both hands in lap. Above second and third figures trunk and branches of tree, along which a serpent coils. Under feet of seated figure to extreme l., Ἀνείκα | [N]ικάνωρος. Under central figure, Αλείας | Ὀκκου. Under feet of seated figure to r., Ὀκκος Αλείου. Along the bottom, |χ|αίρετε.

7. Grave stele. Relief: l., standing draped female. Next, tree along which serpent coils. Below tree, a cock. To r., man in cloak holding something toward cock. Διογένης Βαρναίου ἥρω[ς] | Δάδα Π --- Z ---.

8. Flat marble plate, in three pieces, portion missing. Διονυσία | Ἀχιλλί τω | Ιδίω συνβίω μνείας | χάριν.

9. Marble slab, upper third of surface worn away. Appears to be the upper half of a "Macedonian" grave monument. Λονγίγ[α] or Λονγίγ[ι]να | Διονυσία | Εὐγάμω | τῷ ἀνδρὶ | μνείας χάριν.

10. Roman grave stele of bad workmanship, incised gable with acroteria at top. Doric column

at either side of relief. Relief: l., seated woman, draped and veiled; center, small boy, fully draped; r., man fully draped. (Σ)ιλά(ν)α(?) Ἀμμιανῶ τῷ εἰδίῳ | ἀνδρὶ μνείας | χάριν.

11. Slab used as altar block in church of Παναγία Χαβιάρα. Inscription, Ποπλίῳ Πετρω-νίῳ Βάσσῳ | ἤρωι.

12. Roman funerary plaque with relief, no gable. Relief: l., male figure *togatus*; center, vine bearing grapes; r., seated female figure. Ἐπίγονος Ἡρακλέω | τῷ ἀδελφῷ μνείας | χάριν.

13. Roman grave stele, broken away top and bottom. Relief: l. to r., altar with flame on top, lower part of nude male statue on base, dolphin. Αἰλῖος Λύκος | Φοιβανῇ τῇ θυγατρὶ μνείας | χάριν.

14. Fragment of Roman grave stele. Relief: l., standing draped female figure; right, standing draped male figure. --- | --- ὦν Ἰουλιανῇ | τῇ γλυκυτάτῃ μου γυναικί.

NUMISMATICS

Greek Coins.—J. ALLAN records the acquisition by the British Museum of a collection of forty silver and 231 bronze coins by gift from Mr. E. S. G. Robinson. Among them are ten silver staters of Mende from the Calianira hoard, struck off early in the Peloponnesian War; twenty silver drachms from a hoard recently discovered at Paros, of the early fifth century B.C., which prove that this type, hitherto of doubtful attribution, must be Parian; a rare stater of Melos of the second quarter of the fifth century; a stater of Soli of Cilicia of the fourth century; and a unique silver tetradrachm struck in Roman Syria in the middle of the third century A.D. (*BMQ.* xiv, 1940, pp. 95-97; pl. xxxiii, 1-18).

Coins for Eleusinia.—In *Hesperia* xi, 1942, pp. 213-229, M. THOMPSON studies, in the light of 291 new pieces from the Agora, a large group of Attic bronze coins stamped with representations of the Eleusinian divinities or their attributes, and inscribed ΕΛΕΥΣΙΝΙ or ΑΘΕ. She concludes with Babelon that these coins were all a festival coinage issued by Athens itself. Five main periods are discussed, beginning in the time of Lycurgus and running on to 30 B.C. Part of the problem is the adjunct devices on New Style coins: Miss Thompson relates these to festivals, including the Mysteries and the Greater Eleusinia. Others than numismatists will be interested also in the light thrown on the darkest period of Athenian history, the middle of the third century B.C. Special issues

for the Eleusinian festivals continued in the Imperial period down to the very end of autonomous Athenian currency.

ROME

GENERAL AND MISCELLANEOUS

Tusculum.—GEORGE McCracken, in *Proc. APA.* lxxii, 1941, pp. xxxvi-xxxvii, adds supplemental information to his microfilm book on Tusculum, published in 1939. The article is in three sections, of which the first, on the activity of the *plumbarii*, is of archaeological interest. The water supply of the villas was derived from rain water stored in reservoirs. A large number of lead pipes, none of them earlier than the reign of Tiberius, and continuing for some two centuries thereafter, have been found; these pipes bear the names of the owners, or the *plumbarii*, or both. From this source we have the names of twenty-one owners, and fourteen *plumbarii*, who were for the most part slaves or freedmen. The second and third parts of the article (Cato, Varro, and Agriculture, and Tusculum in the Poets) possess no archaeological significance.

Sponsalia of a Classarius.—In *TAPA.* lxxii, 1941, pp. 109-124 (pl.), ROBERT O. FINK reexamines a papyrus in the collection of the University of Michigan, previously published by Sanders as a soldier's marriage contract. This interpretation offers the objections (1) that it is expressly stated in the document that the man and woman in question had already been married, and had two sons, the ages of whom are given; and (2) that in the period of the papyrus (second century A.D.) Roman soldiers were forbidden to marry during the period of their military service. The writer suggests that, in order to insure the legitimacy of his children and protect the rights of their mother, should anything happen to him during his service, the soldier entered into a form of "betrothal" with her at the beginning of his enlistment, inasmuch as his marriage had been automatically annulled when he entered the army.

Mosaic from Daphnae.—The mosaic briefly noted by W. A. Campbell in *AJA.* xlv, 1940, p. 419 and figs. 2 and 4, is now in New York. CHRISTINE ALEXANDER publishes it in more detail in *BMAA.* xxxv, 1940, pp. 244-247 (2 figs.). It was found at Daphnae, a suburb of Antioch-on-the-Orontes, in 1937, and is dated in the second half of the second century A.D. Slightly off center in the pavement is a panel containing the bust of a figure personifying Spring, very brilliantly col-

ored. The rest of the pavement is a system of squares and lozenges in grey, red, white and yellow. The mosaic formed the pavement of a room, probably a *nymphaeum*, entered from a court, and giving access to the *triclinium*, or dining-room, of the villa. The pavement of this latter room is now in Baltimore.

Dacian Cities of Trajan.—In *Proc.APA.* lxxii, 1941, p. xxxi, W. G. FLETCHER, after an examination of the available material on Trajan's Dacian foundations, decides that they had no importance as cultural centers, but were created for more utilitarian motives. Of the three known, two were military colonies, set up for purely strategic and administrative purposes, while the third, Napoca, was administrative only. Local autonomy was granted to the native inhabitants. The archaeological evidence shows little building activity on Trajan's part.

INSCRIPTIONS

Scipionum Elogia.—In *Proc.APA.* lxxii, 1941, pp. xxxiii-xxxiv, HERBERT PIERREPONT HOUGHTON submits an abstract of a paper in which he makes a reexamination of the epitaphs on the sarcophagi of the Scipios. He does this from the point of view of the actual meaning of the words, to secure an improved or original interpretation. The paper forms an introduction to the study of Old Inscriptional Latin.

Processions in *Acta Ludorum Saecularium*.—ALINE A. BOYCE, in *TAPA.* lxxii, 1941, pp. 36-48, discusses the inscriptions dealing with the Augustan and Severan *ludi saeculares*. Conspicuous is the procession, which began during the closing rites of the games, and ended with the initiation of *ludi circenses*. The route of the procession is given. The article is in two parts, the first dealing with the Severan, the second with the Augustan games. In each part the inscriptions are studied, and emendations or restorations given, as a result of the writer's examinations of the stones. At the end she considers the relation of this procession to the Roman theater in general.

Dux Ripae at Dura.—In *TAPA.* lxxii, 1941, pp. 157-175, J. FRANK GILLIAM collects all references to this office in inscriptions and papyri from Dura-Europos. The earliest is in Dura Papyrus 3, where the existence of this officer is established as early as 245 A.D. It was a regular office of a military character, and of considerable importance. The *dux* was in a certain sense the precursor of the *dux ripensis* or *dux limitis* of the

time of Diocletian and Constantine, who were commanders of garrison troops, and of the equestrian order, but at Dura he was a subordinate of the legate of Syria Coele. A study of other inscriptions is made in order to ascertain the functions he performed. He was in some respects equivalent to a *praefectus*, but may have held a more important position. Owing to the unsettled condition of frontier defense, the office of *dux*, often created in other parts of the Empire for special emergencies, became permanent in Dura. Under the orders of the legate, the *dux ripae* was in charge of his district to protect it from hostile raids, and had under his command the troops stationed in that district. In this respect he resembled such policing officials as the *praefectus praesidiorum* in Egypt, and other such functionaries, but their responsibility was less. His headquarters were situated in Dura, where a palace was built for him. During the middle of the third century, Rome in the East was under constant menace from the Persians, all along the frontier, and the province of Mesopotamia was heavily garrisoned and strongly fortified. Syria Coele bordered on Persia only below the Chabur, but was also strongly fortified. The *dux* at Dura commanded, however, in all probability, only those troops forming the garrison of the lower part of the Euphrates *limes*. It was, nevertheless, a position of great military importance, for the control of the caravan route to Palmyra, as well as the road up the Euphrates to Antioch. It was the duty of the *dux* to maintain the frontier defenses in a high state of efficiency, to organize an intelligence and espionage system, and to repel or at least delay any invasion in great force. There is no direct evidence as to the extent of territory under his command. The office was probably created between A.D. 226/7 and 245, perhaps about 231/2, but more probably later. After the capture and destruction of Dura in 256, the office ceased to exist. An additional note at the end comments on two inscriptions from Palmyra, recently discovered, where an office of *curator ripae* is mentioned, which, in the writer's opinion, had no connection with that of the *dux ripae*, and may have been of a fiscal nature.

NUMISMATICS

New Roman Coin.—In *BMQ.* xiv, 1940, p. 97, pl. xxxiii, 19, HAROLD MATTINGLY publishes a remarkable double denarius in the British Museum, with the inscription on the obverse, IMP

MAR SILBANNACVS AVG., a name otherwise unknown. It is reported to have been found in Lorraine, and may be the sole record of some revolt against Philip I, as it appears to belong in his reign. There is also the possibility that it may be an ancient forgery, as such things are not unknown; but this is not considered quite so probable.

EARLY CHRISTIAN AND BYZANTINE

Painting in Catacombs of Sts. Marcus and Marcellianus.—In discussing a vision described in the *Acts of Perpetua and Felicitas*, JOHANNES QUASTEN points out (*Byzantion* xv, 1940-1941, pp. 4-5) that the vision is well illustrated by a fresco, dated in the fourth century by Wilpert, in the Catacomb of Sts. Marcus and Marcellianus at Rome. The painting shows a man climbing a ladder beneath which appears a threatening dragon or serpent. The ladder leads to an *imago clipeata* with a bust of Christ, and the person ascending is considered by Quasten to be none other than one of the two eponymous martyrs.

Calendar Reform at Antioch.—An interesting study concerned with a confusion of dates in mediaeval chronicles is presented by GLANVILLE DOWNEY in *Byzantion* xv, 1940-1941, pp. 39-48. Two Greek inscriptions of Syria, published in 1870, prove by their synchronisms that there was a change in the beginning of the year of Antioch from October to September, made at some time between 449 A.D. and 483. Like all such changes, the shift presented certain difficulties to later historians who had to establish the dates of events which occurred at about the time when the change was made. Of course only events dated in September were exposed to such confusion, and the greater part of Downey's article is devoted to the discussion of the confusion in the accounts by Malalas and Evagrius of an earthquake (or of two earthquakes) which took place at Antioch in this period.

Basilica in the Parthenon.—FRIEDRICH WILHELM DEICHMANN (*AM.* 63/64, 1938-39, pp. 126-139, pls. 21-24) has tried to reconstruct the church built inside the Parthenon and used about one thousand years. The reconstruction is based on the scanty actual remains, on old drawings dated before the explosion of 1687, and on the literary evidence collected by Michaelis (*Der Parthenon*). The church had three naves and galleries supported by twenty-two columns. The capitals were of the Corinthian order. The gal-

leries were probably lighted by windows obtained by cutting out parts of the frieze, perhaps the gaps designated as "vindow" or "ventow" by the "Carrey" draftsman. The original east entrance door was remodeled as an arch of triumph opening on the apse which enclosed the two central columns of the prodomos. It had its own roof, and the unprotected center of the east pediment with the birth of Athena was destroyed. In the west, three doors led in from the west room, the original Parthenon, which remained unchanged and was used as a narthex. It was decorated with frescoes in the middle Byzantine period. In the Frankish period the tower in the opisthodomos was added. In the Turkish period it was topped by a minaret, when the church was changed into a mosque. The second, smaller mosque, built after the explosion, was removed in 1843 by Schaubert.

The Parthenon was closed in 435 A.D. by the law of Theodosius. It was remodeled as a Christian church probably in the first half of the sixth century. It was dedicated to the Hagia Sophia and to the Theotokos and Theometor Parthenos.

Coronation in Later Roman Empire.—An article by PETER CHARANIS in *Byzantion* xv, 1940-1941, pp. 49-66, having pointed out that constitutional questions did not arise among the Byzantines and that the constitution was in fact never differentiated from the actual usages of the empire, proceeds to evaluate the opinions of modern authorities in the light of the documentary evidence which bears upon this point. The author concludes that, from whatever angle the usage of coronation is considered, it is obvious that it was an ecclesiastical act, performed by the patriarch as the highest official of the church. Christianity had transformed the Roman world and it was impossible for the constitution of the empire not to be affected by this transformation. The important step was taken in 450 when the patriarch was designated to perform the coronation ceremony. Henceforth coronation by the patriarch became an institution and, as such, a constitutional usage of the later Roman empire. By the introduction of the patriarch in the coronation ceremony of 450 the Church became an essential element in the constitutional system of the empire.

Menologium and Psalter of Basil II.—Through a study of the texts of these important manuscripts it seems possible to date them more accurately than hitherto, and such a study is

presented by SIRAPIE DER NERSESSIAN in *Byzantion* xv, 1940-1941, pp. 104-125. The Menologium, *Vatican gr. 1613*, has usually been ascribed, on the basis of its miniature style, to about the year 1000; but since the serious earthquake which occurred at Constantinople in 989 is apparently not mentioned, the question arises as to whether this manuscript might not have been written before that date. Although the text itself contains no allusion to events later than the year 901, and it has been assumed that it is a faithful copy of a synaxarium composed at the beginning of the tenth century, it does contain a miniature (accompanied by neither text nor title) which almost certainly represents St. Luke the Stylite who died in 979. This date, therefore, constitutes a *sure terminus post quem* for the copy of the Vatican Menologium. The author goes on to suggest the probability that in 985 Basil II, to show that he had "left the shores of luxury with full sail," ordered the execution of this handsome volume of the lives of saints as a fitting memorial of his new devotion to the "serious things of life."

Close stylistic connections between the miniatures of the Menologium and those of the Venice Psalter, *Marc. gr. 17*, have led art historians to place this Psalter in the latter part of Basil's reign, and such a date is confirmed in the portrait of the monarch on the initial page. All details here tend to emphasize the military and triumphal character of the composition, particularly the Bulgarian costumes worn by the men prostrate at the Emperor's feet. Hence the composition may be considered as a commemorative image of the triumph celebrated by Basil when the long war against the Bulgarians was brought to a successful close in 1019. Thus the two manuscripts of Basil II happen to fall at the beginning and at the close of his long military career: the Menologium probably begun before the campaigns against the Bulgarians were resumed in 986, the Psalter copied to crown their end in 1019.

Illustrators of Digenis Akritas.—Although no illustrated manuscript of the Byzantine epic, *Digenis Akritas*, has come down to us, ALISON FRANTZ shows in *Byzantion* xv, 1940-1941, pp. 87-91, that some of the exploits of Akritas were memorialized in Byzantine pottery. Grégoire believes that the death of the Byzantine Roland in 788 gave rise to many folk-songs. The so-called Epic of Digenis—to which the extant texts go back—was certainly composed in the tenth

century, and it is clear that its author was familiar with certain ballads quite similar to those handed down by oral tradition. Hence, in attempting to identify figures and scenes on Byzantine plates of the twelfth and early thirteenth centuries, both ballads and epic may be accepted as equally valid sources. Starting from this basis the author discusses a number of pottery fragments from Corinth and the Athenian Agora, and concludes that Digenis was a favorite subject with the Byzantine potters of the two cities in question.

Diversion of the Fourth Crusade.—The old controversy as to whether or not the capture of Constantinople by the Crusaders was the fortuitous result of a series of unforeseen and surprising events is again taken up in *Byzantion* xv, 1940-1941, pp. 158-166, by HENRI GRÉGOIRE, who argues strongly for the negative side. He has always been convinced that the diversion of the expedition had been intended from the beginning, from the moment when Boniface of Montferrat was elected to succeed Count Thibault of Champagne, and his article indicates that an overwhelming bulk of evidence proves that the responsible leader of the Crusade knew, from the outset, "where he was going." As soon as Alexios the Younger, the pretender, had succeeded in reaching Italy and Germany and appearing at the court of Philip of Suabia, Boniface of Montferrat, the leader elect of the Crusade, saw himself sitting on the Imperial throne. That he never achieved this aim was due less to the opposition of the Pope than it was to the machinations of Dandolo, the shrewd Doge of Venice.

Folios from Family 2400.—In *Byzantion* xv, 1940-1941, pp. 127-132, HAROLD R. WILLOUGHBY publishes two folios (pls. I and II), now in the Lewis Manuscript Collection of the Free Library of Philadelphia. The leaves come from a manuscript of exceptional quality and fascinating interest, and certainly belong to the large "Family 2400" which is already recognized as having crucial importance for workers in the fields of palaeography, art history, and manuscript study.

MEDIAEVAL

Ivory Crozier.—In *Bull. Detroit Inst. Arts* xxi, pp. 50-51 (fig.), FRANCIS W. ROBINSON publishes the head of a bishop's crozier, carved in ivory, of French workmanship, and dating about 1200. The volute is decorated on the outside with acanthus leaves, and ends in a dragon's head. Within the volute, carved in the round, is represented the

Annunciation, with the angel Gabriel appearing before the seated Virgin, of whom only the feet, and the throne on which she sat, are preserved, while the angel is intact. In form and style, this object shows the period of transition between Romanesque and Gothic. A discussion of the origin and development of the crozier as a symbol of episcopal authority concludes the article.

Cathedral in Halich.—From a Ukrainian source (*Srobona*, December 10, 1942, p. 4) it is learned that before the beginning of the war this cathedral, in Eastern Galicia, was excavated. It had been built by Yaroslav Osnomisi, Prince of Galicia, in the twelfth century, and was destroyed by the Tatars. In its crypt was discovered the sarcophagus of the founder.

RENAISSANCE

Coat of Arms by Donatello.—W. R. VALENTINER reports the gift to the Detroit Institute of Arts (in *Bull. Detroit Inst. Arts* xxi, pp. 26–27 and cover ill.) of the coat of arms of the Minerbetti family, by Donatello, and one of his important works. Discovered in Italy in 1925, it is one of the two known coats of arms made by this sculptor, the other being that of the Martelli family, in Florence. This example is of his late Florentine period, before he moved to Padua. Curiously enough, Detroit also has another coat of arms of the Minerbetti family, by Francesco di Simone, from which details lost in the Donatello relief (through being applied in bronze) can be supplied. It is believed, that next to the David in the Widener collection, this is probably the most important work of Donatello in America.

Madonna by Cristoforo Solari.—W. R. VALENTINER, in *Bull. Detroit Inst. Arts* xxi, pp. 18–20 (2 figs. and cover ill.) publishes a Madonna in Detroit, attributed to this almost forgotten Milanese sculptor (1489–1527) who, during his lifetime, was one of the most sought-after artists of the day. The only work now definitely known to be by him is the tomb of Ludovico Moro and Beatrice d'Este in the Certosa di Pavia. This Madonna is attributed to Solari on the similarity of facial type, plastic composition, and execution of details to the figures in the Certosa, and to certain figures believed to be by him in Milan Cathedral, of which he was architect from 1501 till his death. The style marks the transitional period between Late Gothic and early Renaissance, and the influence of Leonardo da Vinci is evident, as well as the High Renaissance. In-

tended originally for a niche above an altar, it is exceptionally well preserved. It is said to have come from the monastery (now dissolved) at Monte-Conero, Ancona, and was formerly in the Mortimer L. Schiff collection.

Fifteenth Century Italian Niello.—A. M. HIND, in *BMQ.* xiv, 1940, pp. 100–101, pl. XXXV, publishes a group of five niello plates in the British Museum, recently acquired, that had been published in 1824, and had been since lost. They are Italian, probably made in Florence or Bologna, date in the latter half of the fifteenth century, and are unique. The subjects are (a) Cupid on a vase; (b) woman with mirror; (c) Justice; (d) woman playing the lyre, and (e) Herakles and the Nemean Lion.

Renaissance Brigandine.—STEPHEN V. GRANCAY publishes, in *BMMA.* xxxviii, 1942, pp. 132–136 (4 figs.), several elements (sleeves, tassets and brayette) of a brigandine or armored jacket, dated about 1575, formerly in the Hohenzollern collection at Sigmaringen, and later in the Clarence H. Mackay collection, recently added to the collection of the Metropolitan Museum. This form of armor is the ancestor of the bullet-proof waistcoats of today, and the processes of manufacture are carefully described, and the suggestion is made that such armor could serve a very useful purpose in modern warfare, both for the armed forces, and for civilian defense workers.

FAR EAST

Indian Coins.—J. ALLAN in *BMQ.* xiv, 1940, p. 98, pl. XXXIV, publishes a group of gold coins of India in the British Museum. Of these by far the most important goes back to the Greek rulers of northwest India, being a stater of Menander in gold, the second known, and the best preserved. The obverse has a helmeted Athena, the reverse a fish-owl. The remainder of the group consists of coins of the "Grand Moguls," some of which are unique, bought from the collection of Mr. H. Nelson Wright.

Hindu Pantheon.—The British Museum has recently been given an important collection of Indian bronzes, paintings, and drawings, formed by the late Major Edward Moor, F.R.S. (1771–1848), in gathering material for his book, *The Hindu Pantheon*, the first edition of which appeared in 1810. Some of the paintings are of the eighteenth century Rajput school, and are unique, there being only two others known (both in the Museum of Fine Arts in Boston) that can compare

with them. The bronzes are of the seventeenth and eighteenth centuries, and are valuable for the illustration of Hindu iconography. They will be of great usefulness for students of Indian art and religion (BASIL GRAY, in *BMQ.* xiv, 1940, pp. 102-103).

Indian Bronzes.—SHERMAN E. LEE, in *Bull. Detroit Inst. Arts* xxi, pp. 27-31 (3 figs.) publishes several examples of Indian sculpture in Detroit. Of Buddhist art there is a figure of Padmapāṇi with two attendants, dated in the eleventh century, from Bengal; of Hindu sculpture, a bronze statue of Umā, consort of Śiva from South India, probably of the fourteenth century, and a small bronze of Kṛṣṇa as butter-thief, undated.

Maitreya and Guardians.—H(ORACE) H. F. J(AYNE) publishes, in *Bull. Univ. Mus.* ix, Jan. 1941, pp. 1-8, pls. I-III, three pieces of Chinese sculpture of great importance, recently acquired by the University Museum in Philadelphia. One of these, a small seated figure, comes from one of the caves at Lung Mên in Honan, and is dated at 512 A.D. It is a representation of the Buddha Maitreya (the compassionate), who was particularly venerated by the early Chinese Buddhists. It is of the characteristic hard grey limestone, which has taken on a rich ebony patina. The other two pieces are of guardian kings, from the cave temples at T'ien Lung Shan in Shansi. In date they are assigned to the first half of the eighth century. They are just under life size, and are fully armed. Strong influence of India is apparent, but the armor they wear is typically Chinese. As guards of the Buddha they represent Kuvera (Chinese, To Wen) Guardian of the North (bearded) and Virudhaka (Chinese, T'seng Chang) Guardian of the South (clean-shaven) respectively.

The Dane Collection.—In a special publication of the Fogg Museum (June, 1942; 12 pp., 6 figs., and cover illustration), LANGDON WARNER describes the collection of Chinese jades, crystals, pottery and porcelains donated to Harvard University by Mr. Ernest B. Dane, shortly before his death in May of this year. The jades consist of three hundred examples, and represent the largest collection in the Western Hemisphere. They belong for the most part in the eighteenth and nineteenth centuries, although two of them are of the earliest period of jade manufacture, belonging at the beginning of the Christian era. They include true jade, jadeite, nephrite, crystal, quartz, and many other hard stones. Some account of the

process of jade-cutting is given. The second part of the article deals with the collection of *Chün* porcelain, of which the Dane gift has sixty specimens, the largest number to be found in any museum in America or Europe. This ware belongs in the thirteenth century (Sung Dynasty) and is lavender blue in color, often shot with tints of scarlet, red and purple. The vases were meant for ornamental flower pots, bulb dishes, and saucers. Many of the Dane examples have inscriptions. This *Chün* ware is referred to in literary evidence as one of the six classic wares of the Sung Dynasty (960-1278) and is noted for clean-cut outline and accurate potting. It was fired at a very high temperature (apparently over 1400 Fahrenheit) which accounts for the delicate colors found. The third part of the article is devoted to the group of *Tenmoku* pottery (brown and black wares), of which there are forty-six specimens, and which will be more exhaustively studied in a future article. Finally, a page is devoted to miscellaneous specimens—figurines and vases of the T'ang Dynasty (618-907) and Sung ceramics other than the *Chün* porcelains described above.

Painting by Chou Fang.—In *B.M.A.* xxxvii, 1942, pp. 128-132 (2 figs. and separate illustration), ALAN PRIEST calls attention to a very fine painting, called *Play with Infants*, recently acquired by the Metropolitan Museum, and attributed to this painter, who flourished in the last years of the eighth century. It appears to belong in the end of his period of activity, and has close affiliations with the early Sung Dynasty. Its history goes back to 1131-1162, the dates of the Emperor Shao Hsin, when it was part of the Imperial collection. From then on, it was in other collections in China, traceable to the last quarter of the nineteenth century. The second inscription on the painting, dating in the middle of the fourteenth century, and describing its subject, is translated. This brings the writer to a discussion of the methods of bringing up children in China, as compared with those of the Western world.

Chinese Vases.—A(LAN) P(RIEST) notes, in *B.M.A.* xxxv, 1940, pp. 261-262, the acquisition, for study purpose, by the Metropolitan Museum of three very interesting Chinese vases—two T'zu-chou jars of the Sung Dynasty, and one unfinished blue-and-white of the K'ang-Hsi period. The T'zu-chou vases are of reddish stoneware, covered with a white kaolin slip, on which the designs are applied. Some account of the technique is given.

AMERICAN

American Archaeology.—The British Museum lists accessions of gold, silver, and copper objects from Peru, goldsmith's work from pre-Columbian Colombia, and an important example of Mexican Aztec pottery (*BMQ.* xiv, 1940, pp. 112–114).

Peruvian Tapestry.—The Detroit Institute of Arts reports the gift of a fine example of Peruvian textile work in a tapestry panel of the Late Chimú period (900–1400 A.D.) decorated with stylized birds, cat masks, very probably from Chan-Chan, near the modern city of Trujillo. On a white cotton ground, the design is woven in wool, in black, red, yellow, and brown (ADÈLE COULIN WEIBEL, in *Bull. Detroit Inst. Arts* xxi, pp. 31–32; fig.).

U.S.S.R.

Early Russian History.—In *Short Communications* vi, pp. 3–14, M. I. ARTAMONOV criticizes the second volume of the History of the U.S.S.R. and outlines various questions in early Russian history. He considers the Lugi and various other tribes as truly ancestors of the Slavs as the Venedi and assumes that there may have been some unity even in neolithic times, although the Slavonic language was not then spoken and the tongue was probably non-Indo-European. The attack on the Byzantine Empire brought the tribes together into one unity, but the culture of the Upper and Middle Dniepr did not come together until the end of the first millennium after an invasion from the North. He also believes that Rus is a term of southern origin and was applied before the coming of the Varangians who formed only one part but an important part of the upper class *druzhina* of Kiev.

Byzantium and Southern Russia.—In the first of two articles under this heading in *Byzantion* xv, 1940–1941, pp. 67–86, GEORGE VERNADSKY discusses the list of bishoprics comprised in the Eparchy of Gothia. Since we know from the life of Constantine the Philosopher that the people of Phullae were converted by him to Christianity on his way back from the Northern Caucasus in 861–862 A.D., it is not before this date that the list of bishoprics of the Gothic Eparchy could have been completed. Indeed, the compilation of the list must have been connected with his mission to the Khazars. On returning to Constantinople from Khazaria, Constantine probably

presented to the Patriarch Photius a detailed report on his mission, and the listing of the Eparchy of Gothia as given in De Boor's *Notitia* was presumably the result of the examination of Constantine's report by Photius. At the time of the mission to the Khazars, the Tmutorokan Rus were unwilling to permit Constantine to visit them, but he may later have sent an evangelist amongst them. Thus the conversion of the Rus might have taken place at any time between 863 and 867. At any rate, the Patriarch Photius was able to announce in his epistle of 867 not only that the Russians had been baptized but that they had also accepted a bishop. The location of the see of this bishop at Tmutorokan appears to be a reasonable conjecture.

In his second article the author discusses the date of the conversion of the Khazars to Judaism and concludes that it took place between 862 and 866.

Orak.—In *Short Communications* vi, pp. 54–58, G. P. SOSNOVSKY discusses some drawings of an elk hunt found on the mountain Kizekh-Takh near the village of Orak in the Khakassian Autonomous District. He concludes that these are typical of the Scythian-Siberian style and date from the 4th to the 2nd centuries B.C. The locality is the furthest northwest area in which remains of the Minusinsk culture can be found.

Khoresm.—In *Short Communications* vi, pp. 69–79, S. P. TOLSTOV discusses the excavations of 1939 in Khoresm. They throw more light on the early period and on the Hellenistic developments. Thus there are traces of the fire shrines or the houses of fire which combined shrines and public buildings. More light was thrown on the Afrigidian period. Coins have been found from the end of the first century and the beginning of the second, stamped by the Kushanian Tsar Kanishka, our first coins from Khoresm. In fact, the excavations of the last three years have done much to give us the chronology of cultures in this area.

Adiyukh.—In *Short Communications* vii, pp. 98–101, L. I. LAVROV gives a brief description of the tower of Adiyukh in Cherkessia which is one of the few square stone towers in the Western Caucasus. The author considers it a work of transition from a fortified house to a typical defensive tower and dates it before the Mongol period.

ARCHAEOLOGICAL ACTIVITY IN PALESTINE AND TRANSJORDAN IN 1941-1942

There has been since the outbreak of the war a surprising number of archaeological discoveries in Palestine and Transjordan. A large proportion of them, however, must be attributed to accident rather than to the result of systematic, scientific, previously planned excavations. There have been, however, since 1939 several important expeditions and excavations in Palestine and Transjordan, which have already been reported on in previous numbers of this JOURNAL (xliv, pp. 139-144, and xlv, pp. 116-117). The following material deals with discoveries made for the most part during 1941 and 1942. Thanks are due to Mr. Robert Hamilton, Director of the Department of Antiquities in Palestine and to Mr. J. H. Iliffe, Curator of the Palestine Archaeological Museum (the Rockefeller Museum), and to the individuals mentioned in this report for the notes on which it is based.

Palestine has thus far been spared the terrors of war on its own soil. Various military undertakings there, extending from air-raid shelters to airfields and more or less elaborate fortifications and new roads of all kinds, ordinary building projects and the ploughing of fields, have yielded a rich variety of archaeological material. It seems literally true, that if one were blindfolded, given a shovel, and told to dig somewhere, anywhere in Palestine, he would uncover something of archaeological interest of greater or lesser importance.

PALESTINE: Prehistoric Archaeology.

During the summer of 1941, Dr. M. Stekelis, on behalf of the American School of Oriental Research, Jerusalem, undertook soundings and excavations at Mugharet el-Watwat and Mugharet en-Nuqtah (Ramleh subdistrict), and Mugharet Wadi Fellah, Mugharet Abu Usba' and Mugharet 'Iraq el-Barud on Mt. Carmel. All of these caves contained prehistoric remains except Mugharet en-Nuqtah. Excavations were undertaken particularly in Mugharet Abu Usba' (*BASOR.* 86, pp. 2-10). According to the excavator, levels were found containing flints which he regards as of "Natufian" type, mingled with pottery designated as being of a "Ghassulian" type. Professor Albright, however, dates the culture of Mugharet Abu Usba' "between the latter part of the Neo-

lithic proper and before Late Chalcolithic . . .," that is, between approximately 4500 and 3500 B.C. (*BASOR.* 86, p. 14). He believes that the flint culture of Mugharet Abu Usba' "is more nearly akin to the neolithic of Palestine than it is to the Canaanite." It would seem to require further study and discovery to determine whether or not Albright is correct in assigning the pottery found to "probably intermediate between Ghassul and Jericho VIII," or to "possibly between Jericho IX and Ghassul" (*BASOR.* 86, p. 12).

TRANSJORDAN: Prehistoric Archaeology.

Under the auspices of the British School of Archaeology in Egypt, working in Palestine, headed till the time of his death by the late Sir Flinders Petrie, Dr. M. Stekelis commenced the investigation and clearance of a large number of dolmens and stone circles in Transjordan, east of Jisr ed-Damieh. Among them are some of the finest and best preserved dolmens in Transjordan. They include the type with four uprights and a covering slab. Sometimes in one of the uprights there is a well-cut entrance about 50 cm. square, closed by a stone slab which fitted into a socket or frame specially cut to receive it. Some of these dolmens were entirely covered by masses of stones piled around and on them. The writer regards this as of unusual interest, providing this covering of stones was originally placed over the dolmens by their builders, in view of the fact that many great dolmens in England are known to have been buried under great mounds of dirt (cf. L. Jewitt, *Grave Mounds and their Contents*, London 1870, pp. 50-82).

Some 20 kilometers west of Amman, and south of the Amman-es-Salt road, Mr. L. Harding, Curator of the Transjordan Department of Antiquities, and Mr. J. H. Iliffe, Curator of the Palestine Archaeological Museum, visited and photographed some dolmens of a peculiar type. They consisted, respectively, of a hollowed-out rock, forming a sort of a tiny room, with an opening at the top which was covered by a stone slab in the usual manner. From several of them which were fairly well preserved, it appeared that they had a small square entrance, closed by a stone slab like those near Jisr ed-Damieh. From even

a short distance it is not easy to detect these "dolmens," since externally they resemble the natural rock of the jagged outcrops among which they lie.

In eastern Transjordan, at a site in the Wadi Sahab east of Jafar, called Sab'a Biyar, a site was examined by Mr. A. S. Kirkbride, British Resident in Transjordan and Mr. L. Harding, where they found flint instruments considered by Mr. Stekelis to be of Neolithic (Kilwan) type. The wells, of which there are really nine, are now silted up. One of the wells which was recently excavated by the Arab Legion produced no water at bed-rock, indicating that the water level is lower today than it apparently once was. The well shafts are roughly circular or oval, and are lined with uncut stones. Near them is a cemetery with graves of two types. One type has large stone slabs set upright all around the grave, and the other is of coursed blocks with large slabs set upright in the entrance. The flint instruments found were associated with these burials.

The very large, enigmatic stone triangles, open at the base of the triangle, and narrowing down to a comparatively small pen at the rounded point, which are to be found in the desert in northeastern Transjordan, and are known as "kites," have recently been examined by Mr. A. S. Kirkbride. He has suggested that they were constructed as great corrals to help prevent the herds of camels from being stampeded into all directions when raids were carried out just for that purpose. An attempt to stampede the herds would result in many or most of the camels grazing within the confines of the corrals being compelled to run towards the pen at the end, particularly inasmuch as the raiders could only ride up to them from the unclosed base of the triangle. There are no sherds or anything else to indicate the date of these corrals, but it is not likely that they are very old.

PALESTINE: Early Historic Archaeology.

Further excavations at Tell Jerisheh, under the direction of Prof. E. L. Sukenik on behalf of the Hebrew University, resulted in the uncovering of a Middle Bronze Age *glacis* of unusual type and interest. Professor Sukenik reports as follows: "For the first time we had an opportunity of studying carefully the construction of this type of fortification, which proved to be of far more complicated character than was expected. The *glacis* consisted of alternating layers of earth and broken rock (*kurkär*). Below these layers and

among them were patches of large sun-dried bricks, or single bricks, laid on a slope parallel to that of the *glacis*. Vertical brick walls formed the upper limit of the sloping layers of the *glacis*. These walls were up to seven courses high. The bricks used measured ca. 40 x 38 cm., and their thickness was ca. 10 cm. The purpose of the vertical as well as of the sloping brick constructions was evidently to strengthen the loose sand and earth of the *glacis* and to give these layers additional support. And, indeed, the bricks fulfilled this purpose extremely well, as the *glacis* is on the whole very well preserved. The sloping layers of earth contained great quantities of potsherds, which clearly belong to the pre-Hyksos period. This system of fortification was therefore built in the Middle Bronze Age. It remained in use till the end of the Late Bronze period. . . .

"The last season of the excavations at Tell Jerisheh proves that a small settlement existed there in the third millennium B.C. At the beginning of the second millennium B.C. it grew considerably, and reached its greatest extent and importance in the second part of the Middle Bronze Age. There was no clear break or conflagration between this period and the following Late Bronze Age, during which the Middle Bronze fortification system continued in use. In the Iron I period a small settlement existed on the top of the southwest part of the *tell*. This settlement was abandoned some time in the tenth or ninth century B.C. From that time on the place was never again occupied."

On a small tell known as Dhaharet el-Humraya, near Nebi Rubin in the Wadi Rubin, south of Jaffa, a number of Middle to Late Bronze Age tombs was discovered by a farmer in the course of ploughing. The area was subsequently excavated by the Department of Antiquities of Palestine. The graves yielded typical Middle to Late Bronze Age pottery. Most of it was badly encrusted and worn by the salts in the sandy soil. In addition, there was found some gold and silver jewelry, including finger rings, mounted scarabs and pendants from a necklace.

In the course of turning over the soil in an orchard on the north bank of the Wadi Rubin, some Middle Bronze graves were discovered, containing bronze daggers and other objects. Excavations were undertaken there by the Palestine Department of Antiquities, which also opened up a tomb discovered in an adjacent quarry. The finds included much Middle Bronze

pottery, scarabs, alabaster vessels, gold and silver jewelry, bronze daggers, ostrich eggs, and some sixty or seventy fragments of ivory plaques with incised decoration in "Aegypto-Canaanite" style. The scarabs are of Middle Kingdom date.

A bronze scepter-sword of the Middle to Late Bronze Age, similar to the one found at Balata near Nablus, was discovered by the Palestine Department of Antiquities in private possession, and traced to Tell Kurdaneh in the plain south-east of Acre. It had been unearthed there in the course of water pumping operations. It is now in the Palestine Archaeological Museum.

At el-Jib, north of Jerusalem, a tomb was discovered and cleared by the Palestine Department of Antiquities. It contained mostly Middle Bronze Age pottery, with an admixture of Iron Age II pottery. The tomb would appear to have been reused in the later period without removing the deposits of the earlier.

At Silwan, a double cave was found by the owner in the course of working his land. It had evidently been used for burials in the Early to Middle Bronze Age. It contained typical flat-bottomed jars, a "tea pot" shape, and a four nozzle lamp, together with bronze pins, and beads of carnelian, onyx, and steatite, pierced and unpierced.

At Ramallah, north of Jerusalem, during the construction of an air-raid shelter in a cave near the Palestine Broadcasting station, a tomb with some six burials belonging to Iron Age I-II was found. With them was a small amount of pottery of the period, together with small objects of iron, bronze, shell, and stone, including a toggle pin, bracelets, rings, and beads. The six burials lay in three groups of two each, forming three arms of a cross, with the feet all together in the middle of the chamber.

At ez-Zib, the Biblical Achzib, a chance discovery of two epitaphs inscribed in Hebrew-Phoenician characters led to the excavation of two Iron Age II cemeteries there. The excavation was carried out by the Palestine Department of Antiquities in November 1941 and February 1942, after a number of tombs had previously been rifled by the villagers. Twenty-three tombs were excavated in the el-Baqbaq cemetery about a half mile to the south of the village, and a dozen at er-Ras on the outskirts of the village to the east. Several tombs in the latter cemetery were found undisturbed. The tombs at el-Baqbaq are in the form mainly of a rectangular shaft, over

2 m. deep, from which a doorway leads to a chamber entirely hewn in the rock, and with a roof built of stone slabs. The tombs contained pottery of Phoenician type, which can be dated by parallels found in Palestine, but especially by parallels from Cyprus and Carthage, to the seventh and sixth centuries B.C. Among the outstanding objects is a terracotta figurine showing a woman bent over a three-legged table and kneading loaves of bread.

There was also an interesting funerary mask which has parallels in Sparta. Trenches dug to bed rock revealed the existence of a chalcolithic settlement on the site of the Iron Age cemetery. The tombs of the second cemetery at er-Ras are on the whole similar to those at el-Baqbaq, the main difference consisting in a flight of very narrow steps hewn along one or two sides of the shaft. This cemetery seems to have been of more recent date, and to have remained in use until the fifth century B.C. There were also found two complete figurines of women playing tambourines, and wearing Egyptian headdresses. The figurines had bell shaped bodies. In the shaft of one of the tombs was a stele bearing the Biblical name of *Amihud*.

During conservation work on the ancient Iron Age fort at Tell esh-Shuni, at the site of the Reading Power Station, Tel Aviv, an outer rampart was discovered on the east side of the fort. The original ground level was uncovered in this area immediately overlying the sand, and was marked by an accumulation of Iron Age II potsherds. The fort is to be dated to about the ninth century B.C. The work was done under the supervision of Prof. E. L. Sukenik on behalf of the Hebrew University. At el Khirbeh, in the Jaffa district, several Iron Age II graves which contained Cypriot pottery were found in the course of planting. They were examined by the Palestine Department of Antiquities. At Tell er-Reqeish, between Gaza and Khan Yunis, was found a necropolis belonging to the end of Iron Age II. In it were 24 jars, many containing cremated burials. Some of these jars also contained Cypro-Phoenician juglets. This necropolis was examined by the Palestine Department of Antiquities.

PALESTINE: Roman to Arabic Archaeology.

In Jerusalem, in the lower end of the Tyropaeon Valley, near the Dung Gate, excavations were undertaken by the Jerusalem municipality in 1942 to trace the line of the ancient sewer which still serves the Old City of Jerusalem, for the

purpose of making repairs. Three large pits were sunk, two inside and one outside the Dung Gate. At a depth of about 12 to 15 m. sections of the Roman street pavement lying directly on the rock and covering the sewer were exposed. The sewer here was a rock-cut canal, about 2 m. deep running underneath the length of the street. Above the pavement in one of the pits were large drafted masonry blocks of Herodian style. These proved to be part of a large wall running east and west, some 20 m. south of the line of the viaduct carried by Robinson's arch. Mr. C. N. Johns, of the Palestine Department of Antiquities, who supervised the archaeological side of these excavations, is of the opinion that this wall was constructed in the fourth century A.D. of reused Herodian blocks. In the Crusader period, it was used to carry a vaulted roof. The width of the street was 11 m. In the levels of débris above it were the remains of the Arab and Crusader periods, Turkish houses, etc. In particular, in the pit outside the Dung Gate, the base of a ruined mediaeval tower was found. It fitted exactly a gap in the City Wall at that point, which was later repaired with a simple curtain wall. Mr. Johns suggests that this ruined tower was part of the demolition carried out by the Caliph el-Muazzam in 1219 A.D., in consequence of the fifth Crusade. The exact date of the street uncovered is not certain, but Mr. Johns feels that the bulk of the evidence points to a period about the time of Constantine.

In the Kidron Valley and adjoining areas, and on the Mount of Olives, the clearance of Jewish tombs of the Herodian period was continued on behalf of the Hebrew University by Prof. E. L. Sukenik and the Palestine Department of Antiquities. Several groups of pottery and lamps were found, which have helped considerably in establishing the pottery forms of the Herodian period. Many of the ossuaries had Greek or Hebrew inscriptions. One ossuary, in particular, had three sets of names within *tabulae ansatae* set between the columns of a façade. One especially fine group of tombs formed a catacomb in four stories with seven chambers and 50 burial places.

The discovery of new sections of the Third Wall in the rear of, and underneath the tennis court of the American School of Oriental Research in August 1940, has been described by the late Professor C. S. Fisher in *BASOR*. 83, pp. 4-7. The excavations of these new sections of the Third Wall were a joint undertaking of the American

School of Oriental Research represented by Professor Fisher, and the Hebrew University, represented by Professors L. A. Mayer and E. L. Sukenik.

Excavations were undertaken by the Palestine Department of Antiquities at the so-called Tomb of Herod's Wives, preliminary to adapting the structure as an air-raid shelter. The secondary shaft entrance or exit at the south end was opened up. This was found to be closed by stone slabs, over which rested several meters of earth. Working down from above, the excavators found a mosaic pavement of poor quality at some distance above the stone slabs and effectively sealing them. It was thus clear that this entrance had not been used since approximately the Byzantine period at the latest, and perhaps not since the original natural cave had been converted into a masonry tomb in the Herodian period. The fine sarcophagi which had lain in the tomb since its initial discovery were removed to the Orthodox Patriarchate.

Laborers of the Jerusalem Public Works Department, while digging up a road near the Tombs of the Kings, not far from the American School of Oriental Research, found 19 tombs belonging to a Roman cemetery. The tombs that had not accidentally been destroyed by them were opened up by the Palestine Department of Antiquities. Most of them were shaft tombs, with either single graves at the bottom cut into the rock and closed by stone covered slabs, or two or three graves cut into side chambers opening off the base of the shaft. There were also several masonry tombs, which may have been vaulted. The tombs were part of the same cemetery, discovered several years ago in the construction of Saladin road, which passes directly in front of the property of the American School of Oriental Research, Jerusalem. Besides some human remains, the tombs contained some gold jewelry, glass, pottery, and several coins. The tombs may be dated to the third century A.D.

Near the colony of Ben Shemen in the Lydda district there was discovered a tomb with painted and stucco decoration, dating about the second century A.D. It was found during blasting operations and subsequently cleared by the Palestine Department of Antiquities. The most interesting finds were two crude, stucco heads in relief which had been attached to the walls. They represent bearded men, and in style are similar to the Fayûm painted portraits. They were removed to the Palestine Archaeological Museum. Painted

and stucco wreaths also formed part of the wall decoration of the tomb.

At the village of el-Haditha near Ben Shemen in the Lydda district, part of a mosaic pavement, probably of Byzantine date, was found beneath the threshing floor. It was lifted and removed to the Palestine Archaeological Museum. It formed only part of one room of larger complex. It had particularly fine tesserae, there being 130-140 cubes to the square decimeter. The subjects preserved included a building with the word ΗΓΥΠΤΟC beside it, and Nile scenes of a rowing boat with lateen sail, ducks, etc., and a man striking a buffalo(?).

At Qaloniya, west of the bridge and just south of the Jerusalem-Jaffa road there were discovered the remains of a monastery complex, the mosaic floors of which contained two foundation inscriptions. One of these is complete, mentioning several names, and is among the finest ever discovered in Palestine of the Byzantine period, to which it belongs. Both inscriptions have been lifted and removed to the Palestine Archaeological Museum.

At Umm Tabun, about 20 kilometers east-northeast of Gaza, near Nejd, a Byzantine courtyard-tomb with a hall and four chambers was cleared by the Palestine Department of Antiquities. It had been previously disturbed. There still remained decorations of painted busts and vine scrolls on the walls and roofs, together with the following inscription: ΕΙCΕΛΘΕ ΟΥΔΕΙC ΑΘΑΝΑΤΟC.

On the north side of Beit Jibrin, at a place known as Mahatt el-Urdi, the Palestine Department of Antiquities cleared the remains of a villa, which had been built over the remains of a Byzantine church. The villa had elaborate mosaic pavements, in which large figures of animals were represented. Some of these figures had been deliberately removed. The villa itself is to be dated between the Byzantine and Omayyad periods.

At Lejjun, near Megiddo, during work on the new police post, a cave containing about 40 Byzantine pottery lamps and other small objects was cleared. During road construction for the military camp there, the figure of a standing lion in limestone was found. It may be of late Byzantine or of mediaeval date, and perhaps was one of two flanking a gateway.

At Ramleh, the cleaning and repair of the 'Anaziye (St. Helena's) cistern was carried out by the Palestine Department of Antiquities, and a pump was installed to keep the water pumped

out during the rainy season. This cistern is the second oldest dated Muslim monument in Palestine, and the earliest dated example of the pointed arch. The cistern has a Cufic inscription giving the date of the construction as 172 A.H., that is, 789 A.D.

For several years the Palestine Department of Antiquities has observed the demolition and rebuilding operations carried on by the Moslem Supreme Council at el-Aqsa Mosque in Jerusalem. Mr. Robert Hamilton, the Director of the Palestine Department of Antiquities, has placed the following notes at our disposal:

"So far as I have been able to piece together the diverse observations in the Aqsa, one may say that the following new facts have appeared:

"1) From excavations beneath the floor of the nave and east aisle, we have discovered an early building marked by the existence of a marble floor (or its bedding) which is at a level varying up to 1 m. below that of the present floor. Associated with that floor we have seen here and there the square bases (or bottom blocks?) of the supports for a series of arcades, running north-south. Northwards these arcades terminate in responds built into a north wall of which we have also traced the foundations, or bottom course, across the width of the three eastern aisles. One door sill in this north wall survived in the easternmost aisle. North of the wall we have found the flagged pavement of an open court, with the stylobate of a portico which would have been 4 m. wide.

"We may conclude from this data that the earliest mosque of which we have concrete evidence was an aisled building, with arcades, about 7 m. apart, running north and south. There is evidence that the central aisle was of the same width as the rest (assuming that the axis of the *mihrab* has not substantially changed).

"This mosque was 19-20 m. shorter on the north than the present mosque. Its north wall and doors were shaded by a portico with slender supports on a low stylobate. We do not know the full lateral extension of this building, but the bedding and certain fragments of the pavement have been traced several meters beyond the eastern wall of the present mosque.

"It is interesting to note that the two lines of the slender stilted arcading, which rest on marble columns and high pedestals in the area east of the present dome, align correctly with two of the arcades of which we have recently seen evidence further north. The intercolumniation also fits. As

to the levels, the pedestals of the extant columns are partially concealed by the modern floor, so they may be related to an appropriate floor level.

"2) From demolition of the recent nave and aisle walls we have learnt that the extension of the mosque northwards to its present north wall (characterized by Byzantine-looking doors with relieving arches), took place before the recently demolished nave and aisle walls with their arcades and columns consisting of drums were built.

"Between the early mosque described in 1) and the mosque recently demolished there was a mosque extending to the present north wall, but with higher arcades, of smaller span, of which the springing stones were seen both in the south face of the present north wall and in the north face of the northern dome-bearing arch. The axis of the arcades in this intermediate building corresponded approximately only with the axes of the present arcades. It would seem, though this is not certain, that this intermediate building antedated the extant mosaic of the Caliph edh-Dhahir which occupies the wall space above the north dome-bearing arch. The width of this building is also unknown.

"3) Investigations on the roof of the porch and demolition of the upper north façade have shown that the north elevation originally associated with the present north wall line, i.e. the façade of the intermediate building, was rather different from the present north elevation. It provided for pairs of round arched windows at a high level at the end of the aisles. These windows became obsolete when the curious sloping aisle roofs of the most recent mosque were built. They were then filled in and replaced by pairs of circular windows at a lower level. An inscription which was found at the summit of the most recent façade showed that one of those responsible for work on the north elevation of the mosque was the Caliph Mustansir B'illah, who is said to have ordered one 'construction' of the façade, which was done in the year A.H. 458-A.D. 1065. Incidentally, this inscription has now been replaced at the top of the new façade, although not another stone of Mustansir's work has been preserved.

"4) Demolition of the timber roof has made accessible a number of carved wooden pieces previously unpublished and in particular has led to the discovery of a fine piece of carving extending nearly the full length of one of the principal nave beams and a reused board containing an inscription naming the Patriarch Peter (of the fifth

century) and a Church of St. Thomas. The existence of the former timber, in fair preservation, is somewhat enigmatic when one considers that it is far too long in span to have been employed in any portion of the earlier building of which we have evidence. The same puzzle surrounds the carved acanthus capitals, which are early in style and yet seem impossibly large to fit the slender supports of which we have seen the bases in the early building. The drummed columns and bases on which these capitals actually stood and which they fitted perfectly have proved to belong to a structure which can hardly be dated before the mosaic of edh-Dhahir and is probably contemporary with that mosaic.

"5) I think it is still too early to endeavor to link up these successive buildings with those described in literary sources. Unfortunately, we have not yet been able to identify from stratified finds the exact date of any of the buildings discovered."

The Palestine Department of Antiquities has continued its clearance of the Omayyad palace at Khirbet Mefjer, north of Jericho. The principal results have been the investigation of the porticos flanking the east gate, of which enough remained to make a fairly certain reconstruction possible, the clearance of the palace walls, the finding of a square masonry pool in the north part of the forecourt, and the following up of the aqueduct which supplied water over two kilometers from Ain en-Nueimeh. The pool contained a fountain in the center supplied by a pottery pipe. Around it stood four L-shaped piers, which in turn were surrounded by eight other piers, forming the corners of an octagon. The L-shaped piers were spanned by arches which supported a drum. Whether or not the drum carried a dome or a timber roof is uncertain. The structure is of interest in connection with other octagonal buildings of Byzantine and Omayyad date which have survived, such as the cathedral at Bosra and the Dome of the Rock. Some voussoirs carved with wind-blown acanthus leaves and having painted plaster decoration on the soffits were found in the pool, and also sections of vaulting of bricks set in mortar, which may point to a brick dome.

TRANSJORDAN: Early Historic Archaeology.

At Amman, on the hill above and east of the theater, chance finds led to the discovery of two Iron Age tombs, dating to the eighth-sixth centuries B.C. They were cleared under the direction of Mr. Lankester Harding by the Transjordan

Department of Antiquities. These tombs contained more than 80 vessels, most of them fairly complete. They were of a distinctive Transjordan Iron Age type, of a kind hitherto known only from sherds found by the writer in the course of his explorations in Transjordan. There are many red burnished jugs with tall necks and trefoil mouths, dishes and bowls of similar ware, dishes of fine "Sebastia," "Megiddo" red burnished ware, and tripod cups. Some of the vessels were decorated with horizontal painted bands in white, black and dark brown. There were also about a dozen jugs with pointed base and collared rim; shaped somewhat like an elongated spinning top. A few examples of this shape had been previously found at Sebastia, Tell Sandahannah, and from unrecorded places in Transjordan. Both tombs contained several intrusive, Hellenistic pots, such as lagynoi, dating to about the second century B.C.

Returning to Jerusalem from America in May 1942, the writer recommenced his archaeological explorations of Transjordan on behalf of the American School of Oriental Research, Jerusalem, and the Smithsonian Institute, Washington, D. C. The work is being carried out in the northern part of Transjordan, which today is, and in ancient times apparently also was, one of the most thickly settled sections of the entire country. At the time of writing, more than 125 additional ancient sites have been visited, and sherds collected. There are probably several hundred more sites to be visited before the archaeological survey of Transjordan, which was commenced by the writer

in 1932, can be considered more or less complete. When that is done, *inshallah*, the archaeological survey will have been carried out in considerable detail from the Gulf of Aqabah to the Wadi Yarmuk. At the present time of writing, the survey has been carried to the Wadi Yarmuk. The eastern sections of northern Transjordan remain to be examined. The almost complete outline of the ancient archaeological history of Transjordan has already now been established. It remains to fill in sections of the country which it has not yet been possible to visit. It may now be said that the northern part of Transjordan, that is approximately from el-Husn or from Irbid north to the Yarmuk, contains the majority of the only real *tells* in Transjordan. There, too, are the oldest sedentary agricultural settlements of the highlands of Transjordan, a considerable number of them belonging to the same Early Bronze Age period as Tell el-Hammeh and Khirbet Kerak, and showing much the same or closely related pottery. In fact, provisionally at the moment it seems possible to say that during the Early Bronze Age, northern Transjordan, that is, this area from el-Husn northward, archaeologically is separate from the rest of Transjordan to the south of it. It would seem to belong together with southern Syria and northern Palestine, rather than with central and southern Transjordan.

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Jerusalem, November 12, 1942

BOOK REVIEWS

ANCIENT EGYPT AS REPRESENTED IN THE MUSEUM OF FINE ARTS, by *William Stevenson Smith*. Pp. 175, figs. in text, 117. Museum of Fine Arts, Boston, 1942. \$1.00.

The Museum of Fine Arts has just rendered a distinct service by publishing a convenient account of its notable Egyptian collection. The author of the handbook, Dr. W. S. Smith, himself participated in providing the collection, for he was for many years the late Professor Reisner's chief assistant in Egypt. As such, he not only became well acquainted with both excavation and publication problems but has kept fully abreast of current developments throughout his field. This shows itself at once in the breadth of the bibliography mentioned in his brief introduction. It becomes even more apparent in the historical backgrounds which he has written for the objects of the various periods. Combination of these narrative accounts provides the reader with a good and really up-to-date over-all picture in English of the full career of ancient Egypt. A chronological table at the end, though it cannot be thrilling, is exceedingly convenient for reference purposes.

The Museum's exhibits have, as suggested above, come to a considerable extent from its own excavations, carried on, jointly with Harvard University, under Dr. Reisner. The results of his many years' work in the Old Kingdom cemeteries at Giza are perhaps best known. Of other sites investigated by the Boston-Harvard Expedition we should note especially outposts of the Egyptian Middle Kingdom in Ethiopia in the Second and Third Cataract regions, also the areas still farther up the Nile, near the Fourth and the Sixth Cataract, where in later days the partially Egyptianized Napatan and Meroitic kingdoms of Ethiopia were centered.

Supplemented by objects from other sources, the Boston collection thus mirrors the development of ancient Egyptian civilization from its prehistoric beginnings to and through its final stages. The 117 illustrations in the handbook are well chosen, but they merely whet one's appetite for more. We are promised a "much more exhaustive book" by Dr. Smith on Egyptian sculpture. It is to be hoped that it may also prove possible to publish with ample pictures additional representatives of the minor arts.

UNIVERSITY OF CHICAGO T. GEORGE ALLEN

EXCAVATIONS AT DEIR EL BAHRI 1911-1931, by *H. E. Winlock*. Pp. x + 235, 14 text figures, 96 plates, map. New York, The Macmillan Co., 1942. \$5.00.

A past master of sprightly narrative, with a breadth of experience that enables him to make vivid to us moderns the human aspects of his ancient Egyptian finds, has put together in this volume a running account of two decades of exploration in western Thebes. Mr. Winlock has been associated with the Metropolitan Museum of Art since 1906, first as a member of its then initiated Egyptian Expedition, later as curator of its Egyptian Department, and finally as director (now retired) of the Museum as a whole. The present descriptions of his excavations are taken, with such revisions as later discoveries required, from reports originally published in the Museum's *Bulletin*. The area concerned is primarily the district of Deir el Bahri and vicinity, where, except for the years of the First World War, he was active from 1911 until the spring of 1931.

The outstanding features of Deir el Bahri are the colonnaded mortuary temples of the Eleventh Dynasty pharaoh Nebhepetre Mentuhotpe and the Eighteenth Dynasty queen Hatshepsut. Winlock and his associates have determined the architectural history and extent of these temple complexes of around 2000 and 1500 B.C. respectively. They also made a special search for Eleventh Dynasty tombs of other rulers and of high officials and courtiers. Wooden models belonging to the tomb equipment of one of the latter, Meketre, found undisturbed in a little secret storeroom, give the fullest material picture yet known of life on a great Middle Kingdom estate. Besides Nebhepetre's officials the Expedition found burials of his queens, of slain soldiers who may have helped him win his control over all Egypt, and even of his tattooed dancing-girls. Again, the royal lineage of Queen Hatshepsut of the Empire, the family vicissitudes which made her regent for the great conqueror Thutmose III in his youth, her usurpation of the throne for herself, her building of her Deir el Bahri temple, and her relationships with her supporters, especially with the presumptuous Senmut—all these are illumined by the Expedition's discoveries.

Along with such major achievements, other finds—Twenty-first Dynasty princesses, Ptole-

maic and Roman tombs, etc.—were just as conscientiously handled. Letters from the aged and hectoring Hekanakhte to his distraught family show how an estate was managed while the master was away. The reader will find detailed accounts of mummification and burial practices as well as of lesser matters, such as pet animals, dolls, and jewelry and toilet articles. This fascinating volume, with its handy size and its numerous illustrations, should inspire or heighten interest in both the past and the future of Egyptian civilization.

UNIVERSITY OF CHICAGO T. GEORGE ALLEN

METROPOLITAN MUSEUM OF ART. ANCIENT EGYPTIAN ANIMALS. A PICTURE BOOK. Pp. ii + 4 (text by *Dorothy W. Phillips*), 20 plates of collotypes. New York, 1942. 25¢.

This little booklet is one of a lengthening series reproducing the varied treasures of the Metropolitan Museum. The brief introduction explains the place of animals in Egyptian culture—as live stock, pets, and game. The excellent illustrations, taken from figures in the round, from reliefs and paintings, and from sketches on limestone, faience, and papyrus, represent some typical and some exceptional animal forms. They range from gazelle, lions, hippopotami, and crocodiles through domestic animals to amuletic frog and fly.

UNIVERSITY OF CHICAGO T. GEORGE ALLEN

CONTRACTS FROM LARSA DATED IN THE REIGN OF RIM-SIN. Yale Oriental Series, Babylonian Texts, Vol. VIII, by *David Earl Faust*. Pp. ix + 37, pls. LXXVIII. Yale University Press, New Haven, 1941. \$5.00.

Larsa¹ is the ancient site covered by the ruins of Senkereh in the southern part of the land first

¹ The root is *lar sa(m)*; i.e. like the city *uri(m)*, it ends in a final *m* which appears only if it is followed by a grammatical particle beginning with a vowel. The etymology of the word is still unknown, but even in the oldest Sumerian texts it is treated as a Sumerian word. This, however, is no proof of its Sumerian origin. The equation of the form *zar arma* with *lar sa(m)* in the syllabaries does not prove that the former is Sumerian, while the latter is Accadian; there is some probability that both forms represent variant dialectal pronunciations of the same word. As for the final -*m* of the writing *zar arma*, this "long" writing involving the addition of a seemingly unjustified vowel to the root, is not uncharacteristic of syllabary mate-

known as Sumer and later as Babylonia. It is still unexcavated; what little we know of the ruins is derived from the descriptive material in Loftus' *Travels and Researches in Chaldaea and Susiana* (1857). The tablets which Loftus excavated are now in the British Museum. In addition, as a result of illicit digging by the Arabs, a number of cuneiform tablets consisting primarily of contracts and letters have found their way into several collections here and abroad, more especially into those of the Louvre and Yale University. The Larsa contract material in the Louvre has been studied and published by the French scholar, Charles F. Jean; that in the Yale Babylonian collection, which "covers a wide range of activities and extends over most of the period of the Larsa dynasty that synchronizes with the First Dynasty of Babylon" has remained largely unpublished. The volume under review is therefore a very welcome addition to cuneiform source material.

This volume, the eighth devoted to the publication of cuneiform material in the Yale Babylonian Collection, contains Dr. D. E. Faust's autograph copies of one hundred and seventy-six selected contract tablets. With the exception of three, all date from the reign of Rim-Sin, the last independent ruler of Larsa, the conqueror of Isin, who reigned sixty-one years until he was finally vanquished by the great Hammurabi of Babylon. To supplement his copies of the texts, the author, in addition to a brief introduction, has compiled six very useful indices, consisting of lists of personal names, gods, temples, officials and occupations, places, canals. In addition, he has prepared a catalogue, consisting of a register and description of the texts, a list of their chronological order, as well as a register of their museum numbers.

Because this relatively large group of business tablets comes from the same ancient site and covers a compact period of a little more than half a century, it furnishes a lively cross-section of the economic and administrative activities current in the cities of Babylonia in the first quarter of the second millennium B.C. Many of the documents consist of contracts and deeds dealing with the sale, exchange, or rent of real estate, farm-land, and slaves, as well as with adoptions and gifts, partnerships and partitions. A considerable number are promissory notes and receipts; the former record loans of grain, dates, reeds and silver, while the latter record sales of the same materials. The problem will be discussed in some detail in a forthcoming study "The Present Status of Sumerian Lexicology and Lexicography."

the latter are for fish, oil, and especially tax payments in silver. Several of the documents are inscribed with lawsuits, and there is one interesting group recording what is described by the author as "surety for slaves."

The copies are reasonably legible and accurate; the introductory material, indices, and catalogue give proof of careful preparation and patient labor. The transliterations in the several indices are very well done indeed; they show a good grasp of the linguistic problems involved. May I take the liberty of making the following suggestions in cases of the very few readings which need rectification as follows:

In the list of proper names the author has done especially well in carefully differentiating the Sumerian names from the Semitic. Note, however, that the name written ^dI M - ḥ é - g á l which he renders on page 5 as ^dadad-ḥé-gál (i.e. as a Semitic name) is probably to be rendered as ^di š k u r - ḥ é - g á l (i.e. as a Sumerian name), since the second component ḥ é - g á l is probably the Sumerian original rather than its Accadian borrowed form.² Similarly the name ^dU T U - ḥ é - g á l is probably to be read ^du t u - ḥ é - g á l and not ^dšamaš-ḥé-gál (p. 22).

The sign A R A D in the Sumerian names in which it is the first component is transliterated by the author as A R A D; i.e. he wishes to indicate that the reading of the sign is uncertain. This is not the case, however. The root of the word represented by A R A D is certainly a r a (d); such syllabary writings as e r u m, e r i, etc. point to dialectal variants only.

In the Sumerian proper name transliterated by the author as ^de n - z u - n a m - t i - m a - a n - s i (p. 10), the writing of the god's name as ^de n - z u (cf. also p. 27) is incorrect; it should be written ^dz u e n.³

² Cf. ZA. xxi, 29 for the name l u g a l - ḥ é - g á l. If ḥ é - g á l were intended as a Semitic component, the first part of the name would have been written as šar-rum or šar-ru-um.

³ Cf. especially the form z u - e n in the phonetically written VAS II No. 1 obv. 3, 6, 10, etc. The reading of the signs E N . Z U as e n - z u is particularly dangerous; it leads to false etymologizing of the name, since a superficial analysis of the two supposed components produces a rendering such as "the lord, the knower," "the lord who knows," etc., a rendering which seems to make good sense, but which is really quite inappropriate as a basic epithet of the moon-god as conceived and adored by the Sumerians. The writing of the

The transliteration of the proper name ^é-a-AN-DUL-ki should probably read ^é-a-an-dul-ki rather than ^é-a-šul-ki (p. 9); cf. the author's correct transliteration of the name ^dadad-an-dul-ki (p. 5).

The name šu-ilim (p. 23) is to be eliminated altogether; a careful examination of the cuneiform signs on the tablet indicates that the name is actually šu-^dgeštin-an(!)-na.⁴

Both in his list of personal names as well as in his list of gods, Faust, like the great majority of cuneiformists, writes the Sumerian name of Sin as N a n n a r instead of N a n n a. Some decades ago, Ungnad (ZA. 22:41, note 1) proved from phonetic writings that the name is N a n n a, not N a n n a r. As for Thureau-Dangin's suggested possibility (Rec. de trav. xxxii, 44, note 3), it is disproved by the fact that there is not a single case in the Sumerian texts of the third and second millennium in which the final r of the supposed root n a n n a r appears, even in those cases where it is followed by a grammatical particle beginning with a vowel. It is not too much to hope that like the non-existing name B a b b a r for the sun-god U t u, the name N a n n a r for the moon-god N a n n a will gradually disappear from the relevant scientific and popular literature.⁵

signs E N and Z U in reverse order is the result of a calligraphic tendency on the part of the early scribes which has its analogy in such writings as Z U . A B for a b z u and G A L . L U for l u g a l.

⁴ This correction eliminates the meaningless and erroneous occupation title GEŠTIN-na; this latter is only l ú - GEŠTIN-na (for the reading of GEŠTIN as k u r u n in this complex, cf. below). Note, too, that the name of the goddess ^dGeštin-an-na appears at least twice in our texts (cf. the seals of nos. 9 and 20) and is, therefore, to be inserted in the list of gods.

⁵ Cf. also ZA. xxi, 20. Note, however, that the statement that the names Sin, Ea and Ištar are of Sumerian origin is probably incorrect; the present indications are that all three are Semitic names of Semitic deities. In the case of Nanna-Sin, the moon-god, it is not unlikely that the Sumerians identified their own deity Nanna with the Semitic Sin, just as they certainly identified their sun-god Utu with the Semitic Šamaš. As for Enki-Ea and Inanna-Ištar it is not impossible that these deities were originally Semitic only and had no Sumerian counterpart but were taken over by the Sumerian conquerors and fitted into their pantheon under the epithets e n - k i "lord of the earth" (perhaps better "deep," "below") and (n) i n - a n - n a "queen of heaven."

Of the index of officials and occupations (pp. 29-30), the following is to be noted: The title *b[ur-gul]* is probably to be substituted for the meaningless *BAR.GUL*. Similarly the title *dub-[sar]* is probably to be substituted for *dub*. In such writings as *l^aeš-GĀ*, *l^agada*,⁶ *l^agešpú*, *l^aše*, *l^ašaḫ-šum-ma*, the author treats the word *lú* as a determinative; to judge from the possible meanings of these words, however, *lú* is actually part of the complex and these occupation titles should therefore read *lú-eš-GĀ*, *lú-gada*, etc.⁷ The complex *gá-dub-ba* can hardly designate an official; perhaps the word *dumu* has been omitted in the text. In *l^animgir-ra*, the final *-ra* is inexplicable if *lú* is treated as a determinative; on the other hand the transliteration *lú-nimgir-ra* seems to make little sense. Note that the sign transliterated *nimgir* is broken in the tablet text; perhaps it was not the sign *NIMGIR* at all. The reading of the occupation title *lú-GEŠTIN-na* is *lú-kurun-na*, not *lú-geštin-na*, cf. *ZA*. 39, 36. The Sumerian word for "baker" is in all probability *muḫaldim*, not *mu*.⁸ The title written *nu-GIŠ.ŠAR* is to be read *nu-giriš*, not *nu-giš-šar*; cf. *AJSL*. 51, 172. The title written *URUDU.NAGAR* is probably to be read *tibira*, not *urudu-nagar*.

In conclusion, may I emphasize the fact that the volume under review represents an important contribution to cuneiform source material; it is essential to the studies concerned with the economic and social structure of Babylonian society in the first quarter of the second millennium B.C. Cuneiformists will be very grateful to Dr. Faust for undertaking and accomplishing the hard, painstaking, and in some ways thankless task of copying the material, and to the authorities of the Yale Babylonian Collection for making it available in published form.

S. N. KRAMER

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⁶ So rather than *gad*; cf. the Accadian loan-word *kitú*, the long vowel of which indicates that the Sumerian original ended in a vowel.

⁷ Note, however, the correct transliteration of *lú* as determinative in connection with the titles *palil*, *zadim*, *simug*.

⁸ Note that the name of the sign is *muḫaldimmu*; that the Accadian *nuḫatimmu* is probably a Sumerian loan-word; that when followed by the genitive particle *a(k)*, the resulting complex is

AN INDEXED BIBLIOGRAPHY OF THE WRITINGS OF WILLIAM FOXWELL ALBRIGHT, prepared by Harry M. Orlinsky. Pp. xxii + 66. The American Schools of Oriental Research, New Haven, 1941. \$1.00.

The archaeological study of the ancient Near East civilizations began in Europe more than a century ago and in America some fifty years ago. This brief half century saw the rise and development in America of three generations of Near Eastern scholars. The first, including such names as Lyons and Harper, Hilprecht and Haupt, Barton and Jastrow, has practically passed from the scene of active scholarship. It is largely the second generation which is now holding the stage; it is primarily the research activities of these men which are largely responsible for the significant progress in Near Eastern studies during the past several decades. Admittedly one of the leading personalities of this active group of Orientalists, both from the point of view of scholastic attainment as well as from that of scholastic influence, is William Foxwell Albright, who published the first of an incredibly large number of amazingly diversified contributions to Near Eastern studies as early as 1911. Moreover, in the course of the past two decades he has become the major guiding force in the development of a considerable group of younger scholars, a goodly part of the new generation of men actively and productively engaged in Oriental scholarship.

On the occasion of Albright's fiftieth birthday, a committee of these former students decided to publish an indexed bibliography of his writings as a token of their appreciation and affection. The actual task of compiling the material was entrusted to Orlinsky, one of the committee, who undertook and completed it as a labor of love, because and in spite of "its peaks of interest and plateaus of drudgery." Since Albright has written significantly on nearly all the more important subjects related to the ancient Near East, there is hardly a scholar who will not find sooner or later an urgent need to make use of this volume and acknowledge gratefully its very real and practical value.

The bibliography itself consists of 473 items. It gives a complete list of Albright's contributions, from brief notes to full tomes. Perhaps one of the more significant features of this list and of its

written *MU-ma* which proves that the root represented by the sign *MU* ended in an *m*.

chronological arrangement consists in the light it sheds on the maturing processes involved in the scholastic evolution of one of the leading Orientalists of our day. Thus, it is not uninteresting to note that his earlier scientific efforts seemed directed largely to cuneiform studies, although Egyptology and general Semitics were by no means neglected. Since then his major field of activity has become Palestinian archaeology, but he has continued uninterruptedly his contributions to Egyptian and cuneiform studies as well as to general Semitics. After several decades devoted to the accumulation and analysis of data on matters pertaining to the Near East, he is excellently prepared for developing the major historical syntheses which are now issuing from his pen.

But it proved far more difficult—and by the same token it will prove far more useful—to prepare the index to this vast bibliography. Scholars will be indebted to Orlinsky for his painstaking labor and care. This index consists of sixty-six double-column pages and classifies the contents of the items listed in the bibliography in so detailed and thorough a fashion that the searching scholar will have little difficulty in making effective use of its guides and keys even in relatively extreme cases. The reader may obtain some idea of the variety of Albright's contributions as well as of the complexity of Orlinsky's task when he finds eighteen pages of indexed material under *Archaeology-Topography*; seven pages under *Bible*; eight pages under *History*. Under *Linguistics* the reader will find listed close to 400 words from the Egyptian, Hebrew, Accadian, Sumerian, Arabic and other languages. The list of Albright's book reviews and notices contains more than 200 items.

May I close this notice by taking the rather unusual liberty of placing on record a contribution of Albright which no bibliography, be it ever so finely indexed, could possibly reveal. It belongs to the human rather than the scientific category and offers a not insignificant commentary on the man and his indirect influence on the progress of Near Eastern studies. As is now generally known among cuneiform scholars, the field of study to which I have devoted the major portion of my scientific career is Sumerian, and more especially, the reconstruction and translation of the Sumerian literary compositions which have remained largely unintelligible in spite of an abundance of source material. This being a "long-term" research project, the *potential* achievements of which were of the greatest significance, but the *immediate* re-

sults of which lacked the usually expected impressiveness and glitter, there is little need to stress the fact that it was constantly in danger of serious interruption because of difficulties in the matter of financial support. One of the more critical moments came after my return from Turkey in the spring of 1939. It then seemed likely that the project would be brought to a complete halt at the very moment when, after almost a decade of intense preparatory effort, the work was about to begin to show very tangible results. And so I take this opportunity of gratefully acknowledging that it was largely Albright's vision and efforts which played a decisive rôle in finding a favorable solution for enabling the project to continue and progress. It is not unrevealing of the size of the man to add that it was only months after this incident that I had the opportunity of meeting Albright for the first time.

S. N. KRAMER

UNIVERSITY MUSEUM, PHILADELPHIA

INDUS VALLEY PAINTED POTTERY: A COMPARATIVE STUDY OF THE DESIGNS OF THE PAINTED WARES OF THE HARAPPA CULTURE, Princeton Oriental Texts, Vol. VIII, by Richard F. S. Starr. Pp. xiii + 106, 174 figs. in text, map. Princeton, 1941. \$3.50.

Dr. Starr, a distinguished field archaeologist whose excavations span the continent of Asia from China in the East to Serabit (Sinai), Nuzi (Iraq), and Van (Armenia) in the West, deals in this volume with the most difficult and insidious archaeological problems: the dating and interrelations of early cultures. Specifically, he endeavors to discover the connections of the Indus Valley culture of the third millennium B.C., which has recently become known through the excavations at Mohenjo-daro, Harappa, and Chanhu-daro, with the early cultures of Baluchistan (Nal, Kulli, Mehri, etc.), Iran (Persepolis, Anau, Sialk, Hissar, Giyan, Musyan, etc.), Elam (Susa), and Mesopotamia (Samarra, Halaf, Al-'Ubaid, Uruk, Jemdet Nasr, etc.). Dr. Starr bases his comparisons exclusively on the patterns of the painted pottery, being fully aware that in addition to this single clue, the whole culture should be used as the term of comparison. Within this limitation, Starr's investigation, without being conclusive, helps "in clearing the haze that has surrounded the Indus Valley in its relationship to other portions of the ancient world" (p. v).

In the first part the author presents succinctly

his tentative conclusions on chronological problems and cultural relationships. This sketch, though valuable, cannot do justice to the vast and intricate subjects treated. Some of the conclusions reached are not convincingly demonstrated, as, for instance, the late dating of the Nal pottery, as suggested by Sir Aurel Stein but contested by Ernest Mackay (p. 18). Incidentally, Dr. Starr seems to be unaware of the fact that the date of Hammurabi has recently been fixed about 1800 B.C. (cf. O. Neugebauer, in *JAOS*. 61, 1941, pp. 58-61) and that consequently all accepted dates in Babylonian history prior to 1400 B.C. must be reduced by about 150 years.

In the second part of the book the author analyzes and compares the several designs occurring on the Indus Valley painted pottery. He derives (ingeniously, but not always plausibly) geometrical patterns from naturalistic scenes. Thus the sigma and chevron designs are interpreted as symbols of birds in flight (pp. 46 ff.); manifestly other interpretations are conceivable and perhaps less hazardous. In spite, however, of inevitable divergences of opinion, the volume is sound and valuable; it is a distinct contribution to our knowledge of the wide dispersion of the patterns on the early painted pottery of Western Asia.

HARVARD UNIVERSITY ROBERT H. PFEIFFER

THOSE ANCIENT DRAMAS CALLED TRAGEDIES, by William Kelly Prentice. Pp. 194, 2 ills. Princeton University Press; London: Humphrey Milford, Oxford University Press, 1942. \$2.50.

The book contains interpretations of the *Prometheus* and *Oresteia* by Aeschylus; the *Antigone*, *Oedipus Tyrannus*, and *Philoctetes* by Sophocles; and the *Alceste*, *Medea*, *Iphigenia in Tauris*, and *Bacchae* by Euripides: an excellent choice.

For each drama, first the legends preceding the tragedy are analyzed; then the plot is related; lastly, important problems or points are discussed. The Greek tragedies are so rich in content that there is room for all possible kinds of interpretations. Some of the author's views will probably be criticized by his philological colleagues, such as his characterization of Antigone as "strong minded, opinionated, somewhat bitter and fanatical, and not altogether averse to a martyr's rôle" (p. 76); and "obstinate, and influenced by personal vanity. Antigone persists perhaps because she is cantankerous by nature" (p. 81). . . . How does this agree with line 523: "My nature is for mutual love, not hate"?

I shall, however, restrict myself to the archaeological side of the book—that is, Prentice's conceptions of the theater building and of the works of art before and at the time of the dramas. The introduction (pp. 3-12) gives a short explanation of the word "tragedy," describes the character of Dionysus, and traces the development of the Greek drama and of the Greek theater building. The author confuses the latter with the Roman theater, when he says: "Later on, most if not all of the orchestra was occupied by spectators, and consequently the performers appeared on a raised stage" (p. 10). For the word "Tragedy" Prentice does not accept my explanation—that the goats are the followers of Dionysos, regardless of whether they are satyrs, comic or tragic actors (*JdI*. xxxii 1917, 68 ff.; *The History of the Greek and Roman Theater*, 22 ff.). If he had, he would have chosen another title for his book.

The weakness of the author's archaeological knowledge is at once revealed by the frontispiece. It is a reconstruction of the Athenian theater as completed by Lycurgus in the time of Alexander the Great, taken from Frickenhaus, *Die altgriechische Bühne*, 1917, pl. II. Prentice himself confesses that it is open to criticism. He has not realized, however, that the large base before the central door is not "for an altar," but for Frickenhaus' unhappy conception of the *eccyclema* as a pavilion rolled out into the orchestra. Had he turned to Frickenhaus' pl. III, the author would have seen the rolled-out pavilion on this base, while the altar is rightly drawn in front of it in the center of the orchestra, where it belongs. For temporary buildings which served as backgrounds in the fifth century a better choice would have been one of Fiechter's drawings in his standard book on the Athenian theater, *Antike griechische Theaterbauten* v-vii, *Das Dionysostheater in Athen*, iii, Abb. 30-34. Fiechter gives another reconstruction of the Lycurgan theater (*ib.*, pls 20 and Abb. 37), but he says (p. 75) of his and of Frickenhaus' reconstruction (reproduced in Abb. 42): "We do not know what the building of Lycurgus looked like, but neither my sketch nor the early attempt of Frickenhaus must impinge on the objective presentation of facts."

That the altar belongs in the center of the orchestra Prentice could have seen from his own second illustration, the theater of Epidauros. Here the round base for the altar in the center of the orchestra can be clearly seen. On the same reproduction, to the left, easily readable, is "Epid.

55." Thus it is not taken from my *History of the Greek and Roman Theater*, as Prentice says, for the figures 184-188 there are different, but from a photograph of the German Archaeological Institute in Athens lent by me to the Princeton Press. In the *Oedipus Tyrannus* Prentice assumes that "before the stage-building is an altar" (p. 103). Certainly this again is the altar in the center of the orchestra, around which suppliants of all ages are seated (vv. 15-17): "Thou seest how both extremes of age besiege thy palace altars—fledglings hardly winged—And greybeards bowed with years, priests as am I—Of Zeus, and these the flower of our youth." I cannot, with Prentice, interpret this as "boys dressed as young nobles" and one priest.

Prentice's lack of knowledge of Athenian topography is shown in his absurd idea that in the *Choephoroi*, the procession of Electra and her maids, in order to reach the tomb of Agamemnon (which is assumed to be on the left side, while I assume it near the altar in the center), "leaves the orchestra by the passage on the right of the spectators, passes around the back of the stage building, and, after a suitable interval, reenters the orchestra through the passage on the left" (p. 46 f.). Later they are supposed to go back by the same route in the opposite direction. Prentice evidently has no visual conception of the steep orchestra terrace at the edge of which the temporary buildings which served as a background in the fifth century were erected.

Prentice asserts that "no one knows" why Neoptolemos lived on the island of Skyros (p. 120). I suggest that he look at the beautiful pictures of Achilles on Skyros (Hermann-Bruckmann, *Denkmäler der Malerei*, pls. 5, pp. 137, and 189, colored pl. IV; Mary Swindler, *Ancient Painting*, p. 284, figs. 456-7; Pfuhl, *Malerei und Zeichnung* ii, pp. 776 ff.; iii, pp. 269-272, figs. 649-651; cp. Roscher, *Lexikon der Mythologie* i, p. 26 f.), in order to understand why Neoptolemos, born in Skyros as a consequence of Achilles' love for Deidamia, lived there with his mother and his grandfather Lykomedes.

A sorry jumble is made of the artistic history of the Sphinx (p. 93 f.). The author has not even distinguished between Mycenaean and archaic art. I recommend to him to study Ilberg's article in Roscher, *Lexikon* iv, pp. 1298-1408, and for the relation of the Sphinx to the Oedipus legend, Karl Robert, *Oidipus* i, pp. 48-58. He will discover that the monuments have much to contribute

to the understanding, not only of Greek drama, but of all Greek civilization.

The book is well printed and nicely bound. The design impressed on the cover is taken from a theater ticket used in Roman times for a bilingual public which attended a revival of a tragedy by Aeschylus (cf. Bieber, *History of the Greek and Roman Theater*, p. 349, fig. 455, no. 4). It thus reminds us of the fact, duly emphasized by Prentice, that these tragedies lived through all antiquity and that they still live today.

COLUMBIA UNIVERSITY MARGARETE BIEBER

EXCAVATIONS AT OLYNTHUS, XI: NECROLYNTHIA, by David M. Robinson. Pp. xxvii+279, pls. LXII, figs. in text, 26, 1 plan. Baltimore, the Johns Hopkins Press, 1942. \$15.00.

The latest Olynthus volume is a publication of the graves (644 in all) from two cemeteries just outside the city. These cover a period from the late sixth to the fourth centuries B.C.

Part I is a catalogue of the graves, practically all being described. Most of the objects found in them have already been published in previous volumes. A date is assigned to nearly every grave; this is seen to be quite a feat when we observe that many consisted merely of skeletons laid in the bare earth with no objects buried with them. One interesting chamber-tomb was found and is fully described.

Part II contains the conclusions to be drawn from a study of the graves. The most interesting part deals with the burial customs of the Olynthians. The graves as a whole are indicative of poverty or, at least, economy. At Olynthus both cremation and inhumation were practiced. Many child burials were in amphoras. The majority of adults had tile-covered graves, of a type which the author says does not vary, even in the shape of the roof tiles, from the earliest to the latest period of the cemetery.

The actual excavation technique appears to have been rather uneven in quality. We learn, for example, that coffin nails were uncovered still standing erect on their heads, a matter requiring a fairly delicate touch, and yet the ledges at the sides of the graves on which the tiles rested were said to have been not often noticed, because the trench walls could not be distinguished from the fill of the grave. The soil of Olynthus must be unusually soft, since in ordinary circumstances a trained workman can easily distinguish with his pick the difference between virgin soil and soft fill. The statement is also made that "since a small

coin is hard to find among ashes and burnt pebbles, many of them may have been missed in the excavations," which seems to indicate that the fill of the graves was not sifted.

There is an impressive number of plates, a large percentage of the graves being illustrated, often from more than one viewpoint. The photographs are of varying quality. Each one, however, is carefully marked to designate whether it illustrates the exterior or the interior of the grave.

Several statements are a little hard to understand, such as the one to the effect that "it was sufficient to bury only at such a depth that the stench could not rise to the surface, if animals dug up the corpse," or the one which implies that the corpse of an infant would disintegrate so soon that there would be very little danger of its causing a stench or of dogs digging it up. The observation, made in the case of a multiple burial, that "no evidence of death by a plague was found in the well-preserved skeletons," is obviously true, but rather startling in its implication that the type of disease which the word plague usually connotes can leave traces on the skeletal structure of the body. More detailed information on this point would have been welcome.

In the appendix a study of the skulls by J. Lawrence Angel affords a picture of the average Olynthian and his divergence from the average classical Greek type. He concludes that the Olynthian was more mixed Alpine in character than the contemporary population south of Macedonia, i.e., he combined the short Alpine face with the long Mediterranean brain case. Measurements of the modern Olynthian apparently show that the type has not changed greatly since ancient times.

The book as a whole gives us a very clear picture of a Greek cemetery of no great wealth or pretension. Of the two chief aims of cemetery exploration one has been well fulfilled. The material has been thoroughly sifted for any light it might throw on the social and religious customs of the local population. It is a pity that the previous volumes have ignored the other equally important aim, that of establishing the relative chronology of objects, such as vases, terracottas or bronzes, by their association in a given grave, or their absolute chronology by their occurrence with datable objects. The importance of grave-groups in the dating of small objects can hardly be overestimated, since in only rare cases is there evidence of objects of widely varying date being

found in one grave. The previous Olynthus volumes would have had far more value if the objects, particularly the terracottas, had been dated not on stylistic grounds, but according to their occurrence with other datable objects in graves. Such a grave as no. 584, which contained fourteen terracottas that were variously dated (in *Olynthus* vii) all the way from the sixth century to the fourth, shows the dangers of dating on purely stylistic grounds.

PRINCETON, NEW JERSEY AGNES N. STILLWELL

TIBERIUS AND THE ROMAN EMPIRE, by Charles Edward Smith. Pp. v + 281. Baton Rouge, Louisiana State University Press, 1942. \$2.75.

It is startling to find another book on Tiberius appearing just eleven years after the publication of F. B. Marsh's excellent study, *The Reign of Tiberius*. The Preface offers an explanation. Therein Professor Smith, while recognizing the value of Marsh's and other recent studies, states: "Yet few topics in ancient history offer wider opportunities for the exercise of judgment on questions of emphasis and interpretation or present more critical problems in the use of ancient authorities. Many of the most controversial issues cannot be definitively settled by the utilization of epigraphical or numismatic evidence and, hence, continue to engender interpretative variation." One cannot quarrel with such remarks, but I regret to say that no sufficiently new interpretation emerges from Professor Smith's book to justify the prodigious amount of work which must have been devoted to its composition.

One of the chief weaknesses of the book lies precisely in an almost total failure to discuss the question of the reliability of the ancient authors. Velleius, Dio, and Suetonius are cited and quoted frequently, but seldom is any effort made to gauge the value of their evidence. Tacitus, naturally, is the source most often drawn upon, but the evaluation of his testimony is wholly inadequate. Usually the method employed is merely to quote or paraphrase Tacitus, with the occasional addition of remarks that such and such a statement is malicious or exaggerated, etc. Only twice does the author attempt to come to grips seriously with the problem of the sources. On pages 160-161 we find that Tacitus was biased against the principate and that he acquired this bias in the reign of Domitian. Again on pages 216-217 we are told that Tacitus' excellent understanding of senatorial business is to be explained by his use of the *Acta*

of the Senate. If this method of source criticism is compared with Marsh's, as found in Chapter I and Appendixes I-III, it is clear that in the book under review nothing new is to be learned on the basic question of the sources.

The book as a whole follows the chronological order of Tiberius' reign except for the last four chapters which are of a more general character: *Lèse Majesté* Prosecutions under Tiberius; War and Peace in the Provinces; Relations with the Senate and the Administration of Italy; Economic Conditions during the Reign of Tiberius. These chapters are probably the best in the book; although containing no original interpretations, they provide an interesting and useful collection of material. The most original contribution is to be found in the rather convincing insistence that it seems unlikely that Sejanus was implicated in the death of Tiberius' son, Drusus. The contention that it cannot be conclusively proved that Sejanus was aspiring to the throne is also worthy of consideration.

In general, the criticism can be leveled against this book that it is so circumstantial that frequently the important matters are obscured. A case in point is Chapter I: The Accession of Tiberius. The events following the death of Augustus, as described by Tacitus, Dio, and Suetonius, are retold so fully that the reader becomes confused and almost forgets the essential factor—namely that the accession of a new *princeps* was a novel phenomenon and hence both Tiberius and the Senate were in doubt concerning the proper steps to be taken. In particular, the style can be legitimately criticized. On page after page the author weaves into his sentences so many quotations from writers, both ancient and modern, that the reader loses all sense of continuity and feels that he is perusing a patchwork.

In summary, it should be emphasized that the book has definite merits. It furnishes a good review of Books I-VI of Tacitus' *Annals* and of the relevant portions of Dio and Suetonius. The evidence derived from these and other sources, and the opinions of modern scholars have been conscientiously culled and systematically arranged. The full bibliography at the end (pp. 257-270) and the voluminous footnotes are useful. Other good points could be added, but it remains none the less true that for a penetrating interpretation of the reign of Tiberius written in English, the reader will still prefer to go to Marsh's *The Reign of Tiberius*.

PRINCETON UNIVERSITY

JOHN V. A. FINE

DIONYSIAC SARCOPHAGI IN BALTIMORE, by Karl Lehmann-Hartleben and Erling C. Olsen. Pp. 82, figs. in text, 44. Published jointly by the Institute of Fine Arts, New York University and the Trustees of the Walters Art Gallery. Walters Art Gallery, Baltimore, 1942. \$1.50.

It has been recognized for some time that the representations on Roman sarcophagi are not purely decorative, but were chosen to express the ideas of life and death held by the persons buried in them or by their families. Greek myths were reinterpreted according to late Roman beliefs. A careful study of them will thus contribute much to our knowledge of the religion of that age. The Walters Art Gallery is so fortunate as to own seven sarcophagi which are remarkable not only for their artistic merit, but also for the fact that they come from the same family tomb, namely that of the Calpurnii Pisones, found in 1885 near the Porta Pia in Rome; two others from the same tomb remained in Rome and are now in the National Museum. The authors found here a unique opportunity to study a stylistic sequence in chronological order and the creed of a single family. According to the preface, it is a combined study, so that the exact share of each author is not definable, but Lehmann-Hartleben concentrated on the interpretation and Olsen on the style.

Three sarcophagi are clearly Dionysiac, as the representations, the childhood of Dionysus, his triumph, and his meeting of Ariadne, prove. The others, representing Victories with a shield and Cupids with garlands, the myth of the daughters of Leucippus, griffins, masks and garlands, are shown by an analysis which is as brilliant as it is learned, to belong to the same complex of ideas. It is to be concluded that the family of the Calpurnii had a continuous religious tradition and belonged to a cult-community of syncretistic character, in which the cults of Bacchus and Sabazius were combined. A cult image of the latter is represented on one of the short sides of the Ariadne sarcophagus. A ritualistic and eschatological meaning has been given to the Greek myths: since the cult communities had different degrees named after the followers of Dionysus as *thyrsophori*, *satyri*, *sileni*, etc., members having such degrees could identify themselves with the corresponding figures on the sarcophagi. The meeting of Dionysus and Ariadne on the Ariadne sarcophagus symbolizes the happy reunion of

the worshippers of Dionysus in the other world; the abduction of the Leucippidae shows the transition, in the moment of death, from the human world to the sphere of the divine, and the figures on the Victory sarcophagus, the shield, palm tree, the barbarian prisoners, the Victories themselves, mean victory over death, to mention a few examples of the many convincing interpretations of the authors.

For dating, the authors rely on technical criteria such as the use of the drill; on stylistic criteria, such as the development of the representation of space, and finally on comparisons with other monuments. A chronological sequence is thus established which begins at the very end of Hadrian's reign (138 A.D.) and ends about 210 A.D. These dates are convincing, for no one is likely to take issue on a question of a few years, it being agreed that styles always overlap. The only legitimate objection is that the authors seem to be inclined to restrict the overlap a little too much. The date about 160 A.D. given to the Thiasus sarcophagus seems to be a little too late, because the style is considerably earlier than that of the Childhood sarcophagus which is correctly assigned to the decade 160 to 170. The Ariadne sarcophagus likewise might be considered to be a little earlier than 200 to 210, because the elongated figures parallel those on the Marcus column. The reviewer is, however, somewhat hampered by the reproductions. These are very sharp and clear, it is true, but it is to be regretted that no more details could be given for stylistic analysis.

The bibliography is copious; nevertheless a few additions might be welcome to the student, for the interpretation of Roman sarcophagi: G. A. S. Snijder in *Raccolta di Scritti in Onore di Felice Ramorino*. Pubbl. Univ. Cattol. Sacro Cuore, S. 4; *Scienze filol.* 7, pp. 263; for earlier Dionysiac representations of eschatological character: Snijder in *RA*: S. 5, 20, July to Dec. 1924, pp. 37; for Sabazius: Oesterley in S. H. Hooke, *The Labyrinth*, London, 1935, p. 130; for the stylistic development during the second century A.D.: Wegner, *JdI.* 46, 1931, p. 61 and D. E. L. Haynes and P. E. D. Hirst, "Porta Argentariorum," *BSR*. Suppl. Pap. 1939, p. 23. In the sentence on page 42: "Hilaria and Phoibe the 'Shining' and the 'Gleaming,' were originally like goddesses," is like a typographical error for "light" (cf. J. Carcopino, *La Basilique Pythagoricienne de la Porte Majeure*, p. 111).

BRYN MAWR COLLEGE

VALENTINE MÜLLER

ROMAN ARCHITECTURE, FROM ITS CLASSICISTIC TO ITS LATE IMPERIAL PHASE, by Axel Boethius. Göteborgs Högskolas Årsskrift XLVII, 1941. Festschrift. Nr 8. Pp. 33, pls. 3. Westergren and Kerbers Förlag, Göteborg. Kr. 5.

The Roman Empire has a dual aspect. It marks the end of antiquity and is the forerunner of the Middle Ages. The latter aspect which had been long neglected is now more and more recognized, one of the reasons being that in this period similarities with our own times can be detected. It is, therefore, very opportune that one of the best scholars in this field gives us a lucid summary of the essential features of Imperial architecture. Two trends existed side by side; one is the classic tradition which appears in several "renaissances" and the other is the new style which comes into full bloom in the Byzantine and Romanesque periods. The classic tradition uses Greek motives, but blends them with Italic motives as early as the age of Augustus. The new style is utilitarian; its most characteristic features are: the exterior is plain, without the decoration of columns; if there is any articulation, it consists of buttresses and blind arcades, or is achieved through the arrangement of the windows; the interior is splendidly decorated, especially with mosaics; vaulting is extensively used; columns are often connected by arches; bricks and concrete are the materials. Good examples are the tenement houses and tombs of Ostia, the "Mercato di Trajano," the thermae at the seashore of Leptis Magna, the "Sedes Justitiae" in Trier, commonly called the Basilica, the Aurelian wall of Rome. Rome as the capital was foremost in these achievements which sprang from necessity of reorganizing the legacy of the past on an enlarged scale and of meeting the increasing needs of urbanization, but other parts of the Empire, for example, the large towns of North Africa, also participated in the experimentation. The style had a popular background and appealed to the masses with its utilitarian straightforwardness and expressionistic propaganda. The Christians, too, preferred it.

The author's study is the more valuable in that he does not treat architecture as an isolated phenomenon, but points out the same tendencies in sculpture and, especially shows that the principal architectural ideas have been expressed by the ancients themselves. Vitruvius' ideal is the Hellenized Italic style; Tacitus, Julianus the Apostate, and Claudianus represent the classic tradition, Frontinus, on the other hand, reveals a new spirit

by saying, *De aquis* i, 16: tot aquorum tam multis necessariis molibus pyramidas otiosas compares et cetera inertia sed fama celebrata opera Graecorum.

BRYN MAWR COLLEGE VALENTINE MÜLLER

BIBLIOGRAPHIA PANNONICA VI [Dissertationes Pannonicae, ser. ii, 17, separately available as offprint from *Archaeologiai Értesítő* 1941, pp. 213-278], by *Andreas Alföldi*. Pp. 68. Budapest, 1941; pengő 4 (paper), pengő 7 (bound).

The purpose of this series has been to supply a bibliography of Hungary in the Roman period, but since Pannonia cannot be considered apart from the Empire as a whole, Alföldi includes more general titles with a generous hand. The current installment nominally covers the years 1940 and 1941, but material back to 1935 is sometimes cited, and on the other hand many recent British, American and Russian studies have necessarily been either omitted or else frankly picked up from other bibliographies. Yet even with these *lacunae* the fascicule is not merely one more evidence of Alföldi's indefatigable industry, but also a very useful record of many titles upon which we must some day catch up, drawn from a pool of scholarship with which American classicists are not on the whole familiar.

The arrangement follows the system of previous installments (see *AJA.* xlv, 1941, p. 496). The purpose of the work calls for occasional brief criticisms and summaries in Magyar; this reviewer concurs with Alföldi's wish that these could be given in translation as well. . . . The only lengthy intrusion of personal scholarship is an extended rebuttal of Daicoviciu's article "Le problème de la continuité en Dacie" and of his polemical reviews of Alföldi's own studies in the same field (cf. *AJA.* xlv, 1941, pp. 649 f.) . . . Repetitions of titles under more than one rubric would often be justified, but W. W. Hyde's "Inscribed Water-Organ at Budapest" is the only one thus honored. . . . Under the circumstances, it would be captious to emphasize omissions, but future editions of the *Bibliographia* would profit by the listing of not merely such whole volumes as *Antioch-on-the-Orontes* ii (ed. Stilwell *sic!*), but also by separate entries of the more detailed studies therein, e.g. Waagé's publication of the pottery and glass. . . . One is impressed by the quantity of European scholarship during the early years of the war, though doubtless most of the actual work had been done prior to September

1939. Misprints are inevitable in a work of this kind, but they are too numerous.

An evening's perusal of this late-coming and fortuitous link with Europe was something more than an impersonal academic exercise. Mechanical though it is, Alföldi's bibliography evoked nostalgic memories of other days when correspondence with colleagues was ours for a postage stamp and when he himself and most others whose names appear in his pages were not yet our enemies.

HAVERFORD COLLEGE

HOWARD COMFORT

THE GREAT CULTURAL TRADITIONS, by *Ralph Turner*. 2 vols. Pp. 1393, illustrations and maps. McGraw-Hill Book Company, New York. \$8.00.

In these two volumes Mr. Turner gives a synthesis of the cultural traditions of the ancient world from palaeolithic times to the triumph of Christianity. The author is conscious of the vast scope of his undertaking and honestly admits his limitations in controlling the source material. However, he has selected his material with excellent judgement and in his interpretation he shows that he is fully cognizant of the most important works of modern scholars.

In palaeolithic times were laid the foundations of beliefs and practices which still persist but it was not until the neolithic age that technological progress enabled man to rise above his environment and to create for himself an economic surplus. As a result urban cultures developed. In the course of time cities became empires as the ruling class extended their conquests from a desire to control more wealth.

Mr. Turner's thesis may be stated briefly. As soon as man was able to produce more than was required for subsistence, the control of this surplus became the absorbing passion of a few of greater ability or shrewdness, who united in a close organization to maintain their privileges. To this end they used religion, military power, or law. The masses possessed neither civil liberties nor political rights, and always living on a bare subsistence level, were easily regimented by their overlords. As a general rule this regimentation took the form of serfdom or slavery. The primary source of wealth was agriculture. Trade and industry were minor factors in ancient economy, partly because the masses had no purchasing power and as a result capital was seldom invested in these fields. Nor did technological advance keep pace with the development of the great landed estates, and agri-

cultural production steadily declined. In the Roman Empire this decline was accentuated by a struggle between the military class and the old aristocracy to control the economic surplus. As the only remedy for the evils of the world about them, mankind turned to the promise of a future life offered by Christianity.

Turner distinguishes between the high and the low intellectual traditions. The latter represents the customs and lore of the masses which persisted with slight change from palaeolithic times. The privileged few developed the high intellectual tradition, but as they consolidated their power their conservatism increased. Their intellectual outlook turned to the past and the chief subject of study was the memorizing, epitomizing and interpretation of classical or sacred literature. Turner believes that the fundamental cause of decline lay in the intellectual outlook of the power-holding groups and in their functional performance. Their political system led to regimentation of the social order. Their economic exploitation brought a temporary accession of wealth and inevitable decline. Their methods of thought and their system of education stifled all progress in social science and technical innovation which alone could have averted decline.

PRINCETON UNIVERSITY ALLAN C. JOHNSON

TWO CURRENTS IN THE THOUGHT STREAM OF EUROPE, A HISTORY OF OPPOSING POINTS OF VIEW (The Johns Hopkins University Studies in Archaeology, No. 33), by *Elmer G. Suhr*. Pp. 469. Baltimore, The Johns Hopkins Press, 1942. \$5.00.

In this book, which he has dedicated to David Moore Robinson, the editor of the series, Suhr, proposes "to present a history of the conflict between human nature and nature at large on the continent of Europe as it has affected the cultural development of both peoples and individuals from the days of the Greek to our present day." The key to this ambitious undertaking he finds in the point of view of two main types of individuals, whom he calls the "broad intellectual" and the "absolutist." The broad intellectual is the man who employs reason to explain the realm of experience, and adapts his concepts to changing circumstances. Suhr's absolutism is less easy to define: one is tempted to say that the term covers all those mental attitudes of which Suhr does not, or feels he should not, approve. The absolutist concentrates on a relatively narrow segment of his

experience, which he projects into the unknown; he is motivated chiefly by his personal desires and emotions; he is given to logic and to dogma, and, since his activities often fall short of his ideals, to rationalization. He appears in many shapes, and we find placed in this category such varied figures as the Minoan, the mediaeval mystic, a Leonardo da Vinci, a Descartes, and an Anatole France. The Greeks alone achieved a society based on the objectivity of the broad intellectual; in the Middle Ages, to which, on the intellectual plane, Neo-Platonism formed the prelude, absolutism reigned supreme. Of moderns the English are ecstatically praised, though it is admitted that they, like the ancient Greeks, have a tendency to cheap opportunism in moral and political matters.

In all this there is little but the terminology which is new. Suhr examines the culture of each period as an expression of these two currents of thought, with particular emphasis on the art. Yet despite its publication in a series of archaeological studies, scarcely a quarter of the work is concerned directly with art, and only rarely does the author turn from generalities to treat particular points, as in his discussion (pp. 357-70) of animal sculpture and of representations of historical incidents in Greek art. There is little here for the specialist. Suhr's distinction consists rather in the breadth of his knowledge, and his acquaintance with the whole of European culture. Yet his dazzling generalities are not infrequently of dubious value or correctness, and he is at his best when least concerned with the demonstration of a thesis, as in his account of the Italian painters of the Renaissance.

The two brief passages (pp. 44-6, 101-3) devoted to the Minoans amply illustrate the danger of making unsupported generalizations. On the basis of their art, Suhr classifies them as "absolutists on the natural plane." I am not quite sure what the phrase means, but I cannot read without wincing such statements as: "The Minoan . . . never rose to the level of reflection or scepticism"; "apparently it never entered his mind that he could make an error, for there were no distracting reflections in his life"; "they were lovers of impetuous action, never conscious of particular movements"; "They were quite satisfied to accept form as nature had revealed it to them, without making much attempt to improve on it"; "they had no personalities as we know them, except the king"; "The human being . . . plays a minor rôle in this fantastic panorama of color."

One need only recall the careful modelling on the stucco-relief of the "Priest-King," the pride of personality seen in the "Procession" fresco, the vivid figures of the Harvester Vase, the experimental impressionism of the miniature frescoes or the carefully selected poses of the scenes of bull-fighting.

This is not the occasion to point out errors of detail. On larger issues, one might object that the picture of the ancient Greek in Chapter III is drawn too exclusively in terms of the Athenian of the fifth and fourth centuries. Again, the author's profession of impartiality on page 15 is continually belied in his discussions of the absolutist by the use of words heavily charged with emotional coloring, which clearly show his bias. Finally, the book is far too long. The same points are belabored repeatedly, and there is much that seems irrelevant. Yet it also contains much that is useful, and passages that reveal penetrating and sympathetic insight. It is a pity that its genuine merits should be obscured through insufficient care for brevity, clarity, and simplicity.

FRANCIS R. WALTON

CIVILIAN PUBLIC SERVICE CAMP

WEST CAMPTON, N. H.

EARLY CHRISTIAN ART: An Outline of the Evolution of Style and Iconography in Sculpture and Painting from Antiquity to the Eighth Century, by *Charles Rufus Morey*. Pp. ix + 282, ills. 210, frontispiece. Princeton University Press, Princeton, 1942. \$7.50.

THE INDEX OF CHRISTIAN ART AT PRINCETON UNIVERSITY: A HANDBOOK, by *Helen Woodruff*, with a Foreword by *Charles Rufus Morey*. Pp. ix + 83, ills. 5. Princeton University Press, Princeton, 1942. \$1.00.

The unpretentious sub-title of the first book is characteristic of the modesty of the author, who for more than a generation through his teaching and writing has done more to clarify the bewildering complexity of Early Christian art than any other contemporary scholar. In his memorable essay, "Sources of Medieval Style," he outlined the course of Early Mediaeval art with prophetic insight. The present volume is limited to the Late Antique and the Early Christian period. The result is an intensive yet comprehensive critical integration of his findings and of those of many other scholars dealing with the problems of the reconstruction of Early Christian art. His great literary dignity and impeccable lucidity are com-

plemented by an indispensable and exhaustive annotated bibliography found in the notes. By relegating to an appended section the supplementary descriptions of the illustrations and other less relevant information, the author has enhanced the continuity and clarity of his discussion. Unfortunately, this device seems to have prompted him also to leave the illustrations without captions, and to include such basic information as the title and location of each monument in that appendix. The numbers under the illustrations lead the reader to the list in the appendix, but add another inconvenient wave to the oscillation from one section of the book to the other, inevitable in this type of work. The illustrations themselves are frequently far from the high level of design and typography which Princeton University Press generally attains. Their size was governed by their special function in the discussion, but larger and clearer original photographs would greatly benefit the average teacher and graduate student whose only compendium of Early Christian art will be this book. Considering the generally bad preservation of the original monuments and consequently their unprepossessiveness, even the best photographs possible under modern techniques are not too good for their representation. Those of us who are familiar with the originals or with good reproductions of adequate scale are likely to forget that poor illustrations several steps removed from the originals militate against the understanding of both the originals and the scholarly ideas proceeding from them. But in view of the difficulties which face any publication at this time this may sound like carping and I had better turn to a consideration of the ideas in the book.

In accordance with certain basic esthetic differentiations, Morey begins with a contrast between the "descriptive" figure art of Egypt and Mesopotamia and the "representational" character of Greek art of the fifth century—that is, after it had succeeded in liberating itself from the descriptive primitiveness of the sixth century. Then he shows how Greek art was capable of integrating the facts of experience into a simultaneous interdependence and balanced idealized naturalism, the universality of which is paralleled by the development in Greek civilization of studies which deal with universal relations. This balance, however, was never destined to remain unchanged, for the very core of Greek humanism postulates a progressive change, which would inevitably lead to-

ward the definition, mastery and representation in art of all aspects of internal and external experience. It seems, therefore, strange that Morey should explain the representation of pain in Hellenistic sculpture as the result of a psychological maladjustment to the complexity of the realistic world which the Hellenistic era brought into existence. Pain and other emotions were given a restrained and unrealistic expression in the Hellenic period in conformity with the incomplete realism (idealism) of the representational art of the period. It was not until the time was ripe in the Hellenistic period that their restraints were almost completely eliminated. As observed by Morey, these changes took place more rapidly in the new Hellenistic centers than in the older ones like Athens. This, too, seems a normal process, for the hand of tradition bears more heavily upon the older centers.

This dualism furnishes Morey with the bases for the next two divisions in the book, which are given respectively to the "Neo-attic" and "Alexandrian" styles. He explains the former as a reversion to the clarity and ideal stability of the Hellenic or Attic style of the fifth-fourth centuries — after having made a half-hearted, and therefore futile, attempt to cope with the increasing complexity of the realistic trend of Hellenistic art. But its popularity among the Romans (who, like the "Hellenistic" Greeks, were clearly realistic in their predilections) suggests that it might be merely one of those cyclical throwbacks which occur frequently in the history of art, and for which no simple explanation can be given. Whatever the explanation of its origin, Neo-attic sculpture, with its emphasis on the idealized human figure and avoidance of unlimited space-setting, perpetuated Attic iconography and remained an important competitor of the "Alexandrian" or quasi-realistic style. Moreover, in places like Asia Minor and Syria it became finally the dominant expression, as noted in the Ephesian, Lydian, and Sidamara sarcophagi, and in the late mosaics of Antioch.

In discussing the evolution of the last phase of the Neo-attic style Morey repeats an earlier idea that the "Oriental" tradition was responsible for the "rhythmic" compositions, for the frontality of the figures, and for the decoration of the Sidamara sarcophagi as well as for the "Oriental" paintings in the Temple of the Palmyrene Gods at Dura. He admits that frontality was realized both in the East and the West but that the eastern

phase had the advantage of an "age-old tradition of decorative design" which was absent in the West. But after one grants the predilection of the "East" for decorative design, there is little to substantiate the implication that the frontality and decorative vocabulary in the Sidamara sculpture and the Dura frescoes are Oriental in origin. As the surviving monuments show, frontality is not a product of the Ancient Egyptian or Mesopotamian tradition. Primitive vision, upon which both these traditions depend to a large degree, prefers fractional and profile representations. Only sophisticated naturalistic cultures like the Greek and Roman attempt frontality with all its attendant difficulties of foreshortening and space-rendering. Even two-dimensional frontality, as Lehmann-Hartleben will show in a forthcoming book, begins within the Hellenistic period and reaches a high point in late Roman art. Furthermore, it seems to be bound up with popular and religious art, which exists side by side with the "higher" art. The Oriental influence, therefore, which Morey sees in the frescoes of the temple at Dura, would be limited to the ethnological elements and the heavy calligraphic contours of the two-dimensional figures.

Even less can be said about the Oriental influence in the patternized decoration of the Sidamara sarcophagi. The elements which make up their patterns are undeniably Greco-Roman and their "coloristic" effects are already evident in the architectural ornamentation of the Severi. Furthermore, the technical and esthetic aspects of the Sidamara carved decoration are quite different from those of the Oriental tradition. In the former the technique is a "short-hand" method of relatively flat "silhouettes" and deep holes and grooves which give an illusion of plastic units and intervals. In the latter, as seen in Assyrian, Persian, and Sassanian decorative reliefs, the process is a sort of *staccato* relief, consisting of careful modelling of the projecting units over a continuous background. The small units of both types of patterns may give superficially at a distance analogous "coloristic" effects, but they are essentially different. If the Oriental tradition had any influence upon the Sidamara decorative patterns, I believe it was merely in encouraging their greater profusion. It certainly did not contribute any motifs which had not been known before to Hellenic and Hellenistic-Roman art.

The other dominant stylistic phase in the Hellenistic period is labelled provisionally "Alex-

andrian" (in quotation marks). It represents various aspects of quasi-realistic representation of man and his environment. The naturalistic teleology of Greek art is evident in the works of the fifth century, in surviving art or literary description and in the Roman copies of Greek originals in which the figures and their setting are given a three-dimensional impression through the careful grading of ambient light and atmosphere. The stories concerning the works of Antiphilos suggest that Alexandria played an important part in this development. Likewise the origin of the sketchy technique which characterizes so much of the Pompeian frescoes is quite definitely attributed to Egypt (meaning at that time Alexandria) by Petronius (*Satyricon* 1). The question whether Alexandria was also the source of landscape painting hinges on the explanation of certain Nilotic scenes in Pompeian frescoes, upon the absence from Italian sites (Rome, Herculaneum, Pompeii) of preliminary or "primitive" stages of landscape painting, and upon the interpretation of the literary records concerning a certain Demetrios, who came to Rome from Alexandria and who, in separate accounts, is reported to be a topographer and a painter. The absence of landscape paintings from the first Pompeian style and its appearance in a developed stage during the second style is certainly strange. This circumstance and the foregoing pointers to Alexandria led Morey to the logical inference that the origin and early stages of landscape painting took place outside Italy and probably in Alexandria, for that city was preeminent in the Hellenistic world. This inference, however, is weakened by the fact that Alexandria—not having been thoroughly excavated—has not produced any monumental evidence to support Morey's contention. The Nilotic landscapes may be merely another aspect of romantic exoticism such as is manifested by the Pyramid of Cestius. Precise evidence, too, is lacking on the profession of Demetrios. He is described as a topographer and a painter. This may mean that he was a writer on topography who was also a painter. But as Morey logically implies, a painter who is also a topographer is not likely to be a painter of figures, but of landscapes. Still, his place of origin—important in this problem—is not clear. Valerius Maximus (v, 11) calls him an "Alexandrian painter," but Diodorus Siculus (*Exc.* 1, XXXI, 534) says that he was "the son of Seleukos" and elsewhere (*Exc. Vat.* iii, 96 ed. Dind.) that the hospitality which he extended,

when he was in Rome, to the fleeing Ptolemy was deserved, for the king had often been Demetrios' host during his "temporary stay" in Alexandria. The last two references suggest that he might be a native not of Alexandria, but of Syria. The question, therefore, whether Alexandria was the place where landscape painting originated must remain open until more monumental evidence is found in Egypt. But even from the evidence which we have so far, we cannot avoid the conclusion that Alexandria contributed greatly to the origin and development of the "realistic" style of the Hellenistic period.

While I share with Morey his conviction that Alexandria was extremely important, I can offer little support for his use of the term "Alexandrian"—even in quotation marks—to designate all manifestations of the illusionistic realism during the Hellenistic and Roman times. It is impossible to believe that the Romans were always dependent on the Greeks for their artistic progress and that they were not able to develop the borrowed elements further. Their realistic portraiture and the spatially composed architecture may have had their sources in the Hellenistic era, but there is nothing indigenously eastern which can compare with the developed phases of these arts in the Roman period. In this respect Morey's earlier position (*Sources of Medieval Style*) in which he attributed the later development of illusionism to Italy was on safer grounds. It becomes obvious later in the book that his choice of the term "Alexandrian" was in part motivated by the value of a simple frame of reference within which he could discuss his more tangible distinctions between Asiatic (Neo-attic) and Alexandrian ("Realistic") styles. Unfortunately, this simplification assists in the perpetuation of the unwarranted fiction that all the best aspects of Roman culture were provincial reflections of the Hellenic and Hellenistic centers. A stylistic label like "illusionism," for all its limitations, would be the logical counterpart of Neo-attic—which could also be advisably broadened to "Neo-classical." Within this framework the author could have devised chronological and regional classifications which would allow for inevitable local differentiations and thus avoid any prejudice to the important contributions of the Romans and to the author's position. His distinction between the Latin style of the Vatican *Virgil* and the Greek style in the contemporary Milan *Iliad* is a significant indication of ancestral differentiations.

The subsequent evolution of Roman art is summarily characterized in its dual tendencies (often mingling with each other): one toward a narrative and descriptive mode, ranging from the column of Trajan to the Arch of Constantine; the other, a Neo-classical current with fresh throwbacks during the Hadrianic and Antonine periods. The character of late Roman art, however, is so complex and still largely undefined as to make Morey's implications of these throwbacks dubious.

The earliest product of the descriptive mode of the late Roman style passes to the crudely expressive art of early Christianity to which Morey devotes the fourth chapter. He examines its manifestations in the Roman catacombs, the Latin sarcophagi, and the earliest Biblical illustrated manuscripts as represented by their later descendants such as the Joshua Roll and the Paris Psalter. Whether or not one agrees with Morey's dating of these manuscripts, his theory that their archetypes originated in an Alexandrian-Jewish center in the early centuries of the Roman Empire seems very sound and convincing.

In the following division which deals with the productions of Egypt and North Africa he substantiates the hypothetical importance of Egypt and Alexandria by their contributions to Christian art after the Peace of the Church. Critical iconographic details in the Cotton Genesis, the Golenisheff Chronicle and the Vatican Cosmas establish the Egyptian origin of the first two and of the model of the last. Moreover, they provide an outline of Egyptian-Christian art in its two phases, Alexandrian and Coptic. The outline, extending from the later fourth to the seventh century is filled in with the analysis of Coptic work such as the frescoes of Bagawat, Bawit, and Karmuz, and a number of ivories; then with their cosmopolitan or Alexandrian counterparts, consisting of some ivory diptychs, pyxides and the throne of Maximianus. The dating of the Coptic works is as elusive as the complete definition of their varied stylistic elements. The voluptuous females which adorn many Coptic reliefs may be, as Morey suggests, the objectification of the dream-world of the Egyptian monastic saints, but the origin of the most distinctive of those figures is unmistakably Indian. A casual comparison with Indian sculpture of the fourth-sixth centuries provides striking revelations. The rise of monasticism in Egypt may well rest upon its relation with India, of which the Indian journey of Cosmas may

be but a single tangible symptom. The chain of connections between Egypt and other distant centers is completed by the brief but revealing references to the works of north-central Africa (Libya-Tunisia) which show their dual dependence on Italy and Egypt.

The Christian art of the Asiatic East is summarized in the works of the Syro-Palestinian region, Asia Minor, Thrace, and Macedonia, with Antioch and Constantinople playing the pivotal parts. The art of the capital and its circle of influence is reconstructed on the premise that the art of a new city without a tradition of its own would be eclectic. The monuments which represent its inferred style are, however, found for the most part in Venice, Ravenna, and Salonica. This approach to the problem is daring, in view of the paucity of the available material, yet the extant and inferred evidence points securely to Constantinople as the better alternative pivot. Its eclectic character is most convincingly reflected in the Vienna Dioscurides, a dated Constantinople manuscript in which Asiatic and Alexandrian elements mingle. The style of Antioch and its area of influence with their predilections for the Neo-attic (Asiatic) tradition is shown in the miniatures of the Rossano, Sinope and Rabula Gospels, and the Vienna Genesis.

The appearance of "Constantinopolitan" style in Ravenna and the Syro-Palestinian in Rome, which completes Morey's discussion of the art of the "Asiatic East," is but the beginning of the increasingly strong influence of East Christian art upon that of the West and is considered at length in the next three chapters. The presence of Syrians and Greeks in many western centers—Trier, Vienne, Narbonne, Arles, Milan, Ravenna, Rome—is attested by Greek inscriptions, literary records of their commercial and ecclesiastical activities, as well as by the evidently eastern stylistic and iconographic intrusions into Latin works of art. Even in architecture—to which Morey rarely alludes—the influence of the Near East is so profound as to justify Krautheimer's epigrammatic reference to Rome of the fifth-eighth period as an "Oriental province." Morey isolates specific iconographic and stylistic elements in a group of "gold-glasses," the Chronograph of 354, the Columnar and City-gate sarcophagi, a number of ivory plaques, the doors of Santa Sabina, the early mosaics of Rome and the Quedlinburg Itala, and shows how characteristically Eastern elements mingle with Roman and

with the often equally distinct elements of the Italo-Gallic tradition.

The influence of the Near East was accelerated by the conquest of Italy under Justinian. This change, discussed by Morey in a chapter devoted to the art of Ravenna, shows further how the Italo-Gallic elements are united with those of East Christian art in the mosaics of the Roman and Ostrogothic period, and then how a larger proportion of Eastern and Roman elements appear in the Ravennate mosaics of the Exarchate period. But whereas Ravenna seems to have been only the recipient in its relations with the Christian East, she seems to have reciprocated the Roman contributions, as noted in gifts from Galla Placidia, the mosaics and Cosmas and Damian, and the sixth century frescoes of Santa Maria Antiqua.

In the last and ninth chapter Morey brings together the varied threads of the fragmentary fabric of the art of the Early Christian period, which he ends in the eighth century, presumably because the ninth brings new foci of culture and new directions: in the East, the Macedonian Age with its growing tightness of style, leading toward the static dignity of the Byzantine; in the West the Carolingian with its uncontrolled freedom which leads to the animated expressiveness of the Romanesque. Some of the threads of the fabric, such as the Cambridge Gospels, the Codex Purpureus, and the Ashburnham Pentateuch are virtually broken from the whole and cannot be readily related to the rest of its more definite pattern. But the areas representing the art of Rome and the Greek East during the seventh and eighth centuries are remarkably clear. The former is represented by the mosaics of San Lorenzo, Sant' Agnese, the frescoes of San Saba and the several fresco layers in Santa Maria Antiqua; the latter chiefly by the mosaics of Saint Demetrius and Hosios David of Salonica, and by the miniatures of the Paris Psalter and the Joshua Roll. The mural art of Rome during this period was profoundly affected by that of the Greek East. The frescoes of San Saba are as clearly Syro-Palestinian as the monks who founded the monastery in Rome. The seventh-eighth century frescoes of Santa Maria Antiqua are distinctly Egyptian (Alexandrian and Coptic) in their iconography and style. Morey follows Miss Avery's plausible theory that the sudden intrusion into the Italo-Asiatic style of Rome in the seventh century was caused by Egyptian Greeks who fled the Arab

conquest of Egypt. Similarly anomalous intrusions into the current style in such places as Salonica and Constantinople point to analogous conclusions.

The crux of the last chapter, however, lies in the dating of the miniatures of the Joshua Roll and the Paris Psalter. Morey dates them in the seventh-eighth century period, or contemporary with the "Alexandrian frescoes" of Santa Maria Antiqua, which are their nearest affinities. The arguments for such dating have been thoroughly and convincingly presented before (*Art Bulletin* 1929 and *Speculum* 1939). They still retain their convincing force, even in their summary treatment in the present book. Morey's theory concerning these works is supported not only by his masterful, coherent, objective and logical marshalling of all the available evidence, but unwittingly also by the mutually contradictory arguments of those who in the last few years have persisted in dating them in the tenth century. Their false premises, their self-contradictory evidence and their largely subjective evaluations lead to conclusions as fantastic as the concoctions which they conceive these works to be. In the directional pattern of East Christian art, made up by the fairly well dated works such as the Nicosia silver, the frescoes of Santa Maria Antiqua, Syriac 341, the mosaics of Damascus, the Homilies of Gregory (Gr. 510), the mosaic lunette of Leo VI, Stavronikita 43, the Leo Bible, and the Menologion of Basil II (now convincingly dated 979-986 by Miss Der Nersessian, *Byzantion* 1941), there should be little doubt that the Joshua Roll and the Paris Psalter are stylistically nearer the earlier works than the later. The path of East Christian painting seen in perspective leads from a freely rendered illusionistic sculpturesqueness toward a flatter, tighter, and sharper modelling, despite the fact that some of the later landmarks retain vestiges of Hellenistic illusionism. Furthermore, the turbulent period between the "Byzantinizing" Gregory (880-86) and the "Byzantine" Menologion (979-86) was hardly conducive to that fictitious renaissance of classical antiquity which rested largely upon the *sub judice* evidence of the Roll and Psalter. Morey's position in the problem may not be unassailable in every detail, but it is the most tangible, logical, and convincing that has been thus far advanced.

Much of the soundness of Morey's iconographic arguments in the book is based upon the objective testimony of the Index of Christian Art, the origin,

evolution, and present structure of which is described in a handbook by its latest director, Miss Helen Woodruff. The Index is a catalogue of 261,000 cards comprising the Subject File and 50,000 photographs which constitute the Monument File. In the Subject File appear descriptions of objects, figures, and scenes found in published and unpublished works of art up to 1400 A.D., as well as a complete bibliography dealing with the objects described. In so far as the Index is practically complete with reference to objects dating before the eighth century, its value to Early Christian scholarship is inestimable and its files indispensable. It is an instrument nearest to a statistical record of Early Christian art. Its collection and classification of conventional patterns of representation provide the most reliable cross-section views of early Christian iconography which can greatly assist in dating and localization of other works of art. Being a descriptive catalogue it does not eliminate judgments of value which must be reached by examination of the style. On the other hand, where the monument is so badly preserved that its style is distorted, its iconographic testimony assumes the greatest importance.

In order to make the information of the Index available to scholars beyond Princeton and to insure its physical existence against complete destruction, one copy of the Subject File was placed at the Metropolitan Museum and copies of both Subject and Monument file were made for the Dumbarton Oaks Research Library in Washington. If, however, a scholar is unable to go to any of these centers, he may still use the Index through the less convenient but effective means of postal communication. By consulting the lists in the handbook he can first determine the classification of the iconographic elements which concern his study and then request the director of the Index to compile the available information on that subject. A small charge is made for the service and duplicate photographs of the objects in question can be obtained at nominal cost.

Miss Woodruff's handbook is remarkably clear and informative and in its own small dimensions relatively as impressive as the present status of the Index, in the service of which her energies, skill, and intelligence have matched the unselfish devotion of her predecessor, Mrs. Nye, the steadfast vision of Morey, and the generosity of its financial supporters, known and unknown.

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PREHISTORIC COAL MINING IN THE JEDDITO VALLEY, ARIZONA, Peabody Museum Paper, Vol. XXXV, No. 2. Report No. 2 of the Awatovi Expedition, by *John T. Hack*. Pp. xii+24, pls. V, figs. in text, 10. Cambridge, Mass., 1942.

This study deals with only that area of exposed coal measures along the north wall of the Jeddito Valley in northeastern Arizona. It is of particular interest because there are no published records of prehistoric coal mines in other portions of the United States. The report demonstrates that coal became an important natural resource of the Hopi Indians between the thirteenth and seventeenth centuries, A.D., and was in use perhaps somewhat earlier.

The paper is divided into six major units which deal in sequence with the occurrence of the coal, the quality and the uses of the coal, the Jeddito mining area, the Awatovi mining area, and conclusions. Most interesting are the discussions of the uses of the coal in the ruins, on the ash heaps, and the time of use; the mining areas, the mines, and the amount of coal used.

Coal is found outcropping rather widely along the edge of the Black Mesa, and was in use in various places. The geological series is Upper Cretaceous, and is composed of interbedded sandstones, shales, and coal beds. Specifically, it consists of Mesa Verde sandstone, Mancos shale, and Dakota sandstone, with most of the coal occurring in the Mesa Verde and Mancos.

In all, more than 27,000 tons of coal were mined close to the pueblo of Awatovi, while in the entire Jeddito Valley the amount mined exceeded 100,000 tons. It is of interest as a comparison to note that the largest of the Illinois coal mines has been known to produce 15,000 tons in one day, or at the rate of more than 100,000 tons a week. Although more than 90% of the coal was used as fuel for houses, it was not used exclusively, for wood ashes were found as well in the refuse of houses. The less than 10% which served in firing pottery was used near the mines to which the pots were carried to be fired, and where large ash heaps were formed.

The earliest pottery fired by coal, as shown by this study, is to be dated in the late Pueblo II or early P. III period, but coal was most extensively used in the Pueblo IV and Pueblo V periods. It is of considerable interest that in quite late Pueblo V (the historic period) the use of coal, at least in houses, was discontinued, and the author has suggested that this might be explained by the

introduction of European culture, particularly the steel axe, which facilitated the gathering and preparation of wood.

Mining methods employed, though primitive and crude, are interesting. The strip method was the one most commonly used, in which the outcrop was uncovered and followed back in a face with the débris carried outward away from the work. This resulted in the accumulation of large piles of débris, in some places perhaps as high as twenty or thirty feet, which were often capped with the ashes resulting from pottery firing. Underground mining was also practiced, though less commonly. A primitive form of longwall mining was certainly employed and it is suggested that possibly the room and pillar method was used as well.

Although the exposed seams of coal which were worked by the Indians were of poor quality, being subbituminous with much ash and sulphur which would have made a house most uncomfortable, it certainly was widely used in houses. Apparently the Hopi Indians discovered and made use of coal as fuel at about the time it was utilized by the English.

The thesis of this report is clearly stated and profusely illustrated with clear and simple diagrams. There is some tendency to reiterate certain statements, but this is perhaps deliberate as a matter of emphasis. There are a few typographical errors, but these are minor. The reviewer believes the author's use of a brief abstract and the inclusion of a bibliography of reports on aboriginal mining in the United States are two commendable innovations. This is a good paper, interesting, and valuable alike to mining men and to archaeologists.
ILLINOIS STATE MUSEUM JOHN C. MCGREGOR

THE CHANGING PHYSICAL ENVIRONMENT OF THE HOPI INDIANS OF ARIZONA, Peabody Museum Paper, Vol. XXXV, No. 1. Awatovi expedition report No. 1, by *John T. Hack*. Pp. xxii+85, pls. XII, figs. in text, 54. Cambridge, Mass., 1942.

This is the first detailed report of the Awatovi archaeological expedition to northeastern Arizona, which spent part of each season in the field from 1935 to 1939 inclusive. The plan of publication, explained by the director of the expedition, J. O. Brew, in the preface to this report, is to print the various units of study as soon as they are prepared, without any predetermined order for their appearance. This is certainly a sound procedure.

Although the Jeddito Valley in the region of Awatovi Pueblo was the area of primary interest and examination, and so was most intensively studied, comparisons have been made with much of the rest of the Hopi country.

The body of the paper is included in six main chapters. The first of these deals with the modern environment, discussing particularly the physiography, climate, vegetation and water supply. The second deals with the inhabitants of the Hopi country, especially the Hopi Indians, descendants of earlier occupants. The third chapter discusses the physical basis for Hopi agriculture: crops, climate, soils, types of fields, and the main problem of the Hopi farmer, that of getting water to his fields. The fourth deals with sand dunes and climatic change, in which use has been made of old dunes in determining past climates. The fifth chapter considers cycles of erosion and deposition, particularly in the Jeddito Valley but also in other areas, and dates of these cycles. The last chapter discusses the effect of the changing environment on the economy and lives of the Hopi Indians.

In this brief review there is no need to comment on the first two chapters, and of the others only a few of the most interesting points raised will be discussed in any detail. The main thesis is that since the Hopi Indians are agriculturists, changes in the environment would affect their culture, and it is maintained that there have been repeated such changes.

The discussion of the country occupied by the Hopi Indians includes a very interesting observation, that the prevailing winds blowing from the southwest carry sand dunes up the Hopi washes, and that floods bring the sand down again. A very large portion of this paper deals with the consideration of variations in environment which have resulted from this activity of wind and water. The importance of water to agriculture and human needs is given some attention. The conclusion is that for the formation of adequate permanent springs it is necessary to have a thick sand cover in the drainage collection basin which is free of vegetation, thereby reducing transpiration.

Of the various sorts of farms the most important, at least today, are probably the akchin fields, where most of the corn is grown. They are the fields located at the mouths of arroyos of intermediate size, where the water reaching a sudden change of gradient spreads out at flood times. During the most recent epicyle of erosion the

main washes were cut deeper, with the result that the floodwater farms were shifted from the main, or large washes, to the akchins. Something like three or four per cent of the run-off area is akchin and is cultivated.

Not only are there several farming zones and types, but the crops may be more or less located within specific environments. Gully terraces are the spots where early corn is commonly grown. Carrots, onions, and other truck produce are grown in the areas irrigated from springs. Floodwater farms, either on the main or small arroyos in the akchin zones, are where corn and some beans are grown. Last are the sand dunes where such crops as beans and peaches are commonly raised.

Ancient farming was probably similar to modern agriculture. Direct indications of prehistoric practices are found in the lines of stones still visible where they were placed on sand dunes to shelter young growing plants and to prevent sand drift. Floodwater farming would certainly have been just as profitable in akchins then as now and so the tracing of these areas of old deposition gives some indication of the location and extent of fields.

Hack has characterized and identified several dune types. Transverse dunes (which include barchans) are formed in areas of no vegetation, and are at right angles to the direction of the wind. Parabolic dunes are bow-shaped ridges, with the tips of the bow pointing into the wind, and are formed in areas in which vegetation of the "loose sand" type is found. Longitudinal dunes are low narrow ridges of sand which extend across country for miles, and have either a special sort of "loose sand" vegetation or no vegetation. Dunes of this last class are now found anchored in areas where both the climate and vegetation are different from that under which such dunes formed, and this is regarded as about the best evidence for an earlier dry period (perhaps about 5000 to 2000 B.C.).

The author states that small changes in the gradients of the streams in the Navaho country have taken place in recent geological time, resulting in alternate periods of sedimentation and erosion. This fluctuation in physical conditions of the streams he calls "epicycles of erosion." These changes are a result of climatic change, dry periods usually causing erosion, while changes to more wet conditions result in deposition.

Detailed studies were made of fill formations found in the Jeddito and other valleys. The complete series consists of three formations and three

periods of erosion. The earliest formation has been called the Jeddito Formation, and is believed to have existed before about 5000 B.C. It has elephant bones and is identifiable in the Hopi country by its russet color and concretionary layers of caliche. It probably was formed in a more humid climate than today and contains evidence of marshy spots and ponds. This was followed by a long period of erosion when the dunes, now stabilized, were formed, a period much dryer than the present, for dunes choked the lower portion of the Jeddito wash, and rendered large areas uninhabitable. No human occupation is directly associated with these two.

The second depositional series is called the Tsegi Formation. It represents a span of time extending from the early Pueblo period to about 1100 A.D. The action of wind was less than today, and the climate was cooler or more humid than it is now. At least locally there is one epicycle of erosion in this formation. It was followed by a period of erosion during late Pueblo III, or later, which represents a short dry period. The Jeddito wash was now extended through its entire valley.

The third period of deposition is called the Naha Formation. It was deposited sometime after ca. 1300 and before 1700 A.D. It is separable from the Tsegi Formation only topographically and by superposition. The Jeddito wash stayed at full length during this period, and there was possibly more wind, though in general the climate was much like that of today. This was followed by a period of erosion which in the Jeddito Valley was sometime between 1908 and 1920 A.D. This cycle of cutting is considerable, but as yet is not so severe as that during Pueblo III time.

It is the opinion of the author that the evidence correlates from one valley to another and supports the theory that these stages are contemporaneous, and a result of broad climatic conditions, although there is no positive assurance that the history of all the valleys is the same.

Certain basic conclusions may be reached concerning the prehistoric occupants of this area. From a study of ancient arroyos some idea of the relative amounts of agricultural lands available in the past may be had. One of the most interesting of the many clear charts is figure 53, which by five maps shows stages of change in floodwater farming possibilities in the Jeddito Valley. A study of old sand dunes as indicated by lines of stones gives information on climatic change.

The author concludes that the entire history of

this area has been one of constant instability and change, because of climatic and ecological variations. The effect of the arroyos shifting their courses, changing their gradients, and the breaking out or drying up of springs dependent on their areas of intake must have had a profound effect on the people.

The paper has many good summary tables, charts, and other figures which compile and present the somewhat scattered data. There are also many other useful summaries throughout the report.

Occasionally the subject under discussion is covered so thoroughly that repetition results, and there is a tendency to present detailed information to substantiate certain theses which are well known in the Southwest. Although there are a few typographical errors, these and other criticisms are minor. On the whole, this is a useful report, for it has brought together under one cover data which have previously been widely scattered.

ILLINOIS STATE MUSEUM JOHN C. MCGREGOR

THE EYAK INDIANS OF THE COPPER RIVER DELTA, ALASKA, by *Kaj Birket-Smith and Frederica de Laguna*. Pp. 592, 18 figs. in text, 18 pls. Det Kgl. Danske Videnskabernes Selskab.: Copenhagen, Levin and Munksgaard; Philadelphia, University of Pennsylvania Press, 1938. \$6.00.

This book illustrates an axiom of ethnology: no matter how few in numbers a people may be, or how devoid of dazzling elaborateness their culture, they must be given equal weight in our calculations with people more numerous and sophisticated. The parallel situation in linguistics is so obvious that a linguist who ignored it would be promptly rebuked: if there were but one surviving Tasmanian, his speech would be just as important for the study of linguistic structure as that of millions of Indo-Europeans. But it is unhappily the fashion in some ethnological quarters to concern oneself only with the exotic, the spectacular, the numerous, or just with the people who for the moment are the fashionable group to study. Little groups, like the Eyak, are scornfully brushed aside as inconsequential.

The Eyak of southern Alaska have never been numerous and are now practically gone, but the implications of their linguistic and cultural connections are among the most provocative and intriguing that have been brought forward in a long time. In earlier days they were variously dismissed as a minor group of Eskimo, of Tlingit, Athapas-

cans of Copper River valley, and even Tsimshian, or at best a conglomerate tribolet with an impure culture derived from diverse sources. But the very fact that such variant ascriptions could be given to their language, and that amalgamations in their mixed culture were implied, should have made them at once the subject of special interest. When finally they were rescued from obscurity by Birket-Smith and de Laguna, it appeared that their linguistic status was of the highest importance. For some years the suggested genetic relationship of Tlingit in Alaska and the continent-wide Athapaskan tongues had rested on the somewhat uncertain analysis of comparative philology. Suddenly Eyak appears with resemblance to their hypothetical common ancestor. The man best qualified to judge, Sapir, reported "that the phonetic system is suggestive of Tlingit, and the language itself may be a new dialect of the Na-Dene group, coördinate with Athabaskan on the one hand and the Tlingit on the other. Certainly it is not Eskimo, or any dialect of Tlingit or Athabaskan."¹ Should the linguistic material presented here prove the final evidence needed to establish the Na-Dene stock, it will presumably also have established its linguistic center of gravity in the North, hence the point of dispersal for all Athapaskan tribes.

An extremely well-rounded account of the total culture and folklore of the Eyak, primarily contributed by de Laguna, forms the body of the book. Assembling this material was by no means an easy task: it rests in part on verbal amplification by Abercrombie of his brief account written at a time (1884) when Eyak life had barely begun to disintegrate; in part on painfully acquired information from the few Indians who remain. Every ethnographer who has worked with groups no longer in their cultural prime will appreciate the thoroughness of these descriptions, gathered under such adverse circumstances.

The amalgam of cultural forms derived by the Eyak from Eskimo, Athapaskan, Tlingit, and perhaps Tsimshian sources, or at least shared with them, is especially worthy of note. For instance, their dual division, house, and post carvings are of Northwest Coast type, more specifically Tlingit; payment for damage aligns similarly, but songs of

¹ Frederica de Laguna, "A Preliminary Sketch of the Eyak Indians, Copper River Delta, Alaska" (in *Twenty-fifth Anniversary Studies, Publications of the Philadelphia Anthropological Society* i, pp. 63-75, Philadelphia, 1937), p. 64.

derision follow Eskimo practice; clothing is primarily Interior and Eskimo; attitudes toward shamanistic power are, perhaps, fundamentally of Athapascan type, but neatly combined with Northwest Coast concepts.

The extensive comparative section is especially valuable as a roster of comparative studies for northern and western North America. Birket-Smith here considers the Eyak in relation to Asiatic-American migrations and the dispersal of circum-polar, circum-Pacific, Eskimo, and Indian cultures. His formulation shows that 45 per cent of the 183 elements treated point to an underlying primitive ice-hunting stratum, few to a snow-shoe horizon. Hence, the general historical conclusion that the Eyak migrated across Bering Strait with an ice-hunting culture; later, snow-shoe-using culture impinged on them and on the Northern Athapascans, who for their part then penetrated into the Mackenzie basin. These are essentially the general culture-historical formulations of earlier Danish writers, but it is only proper to remark that this formulation has had little weight with most American ethnologists.

While Birket-Smith's comparisons are close and detailed for the immediate area, they become sporadic and hence uncertain for more southerly regions. His center of attention is, naturally, the Eyak region, but there is little question in my mind that had a more thorough and discriminating assemblage of materials been made for the western portion of the United States, pause might have been given to his historical inferences and in some instances, at least, the course of diffusion might have been seen as reversed.

These criticisms are written in appreciation: a book that evokes serious responses is, by that criterion, an important contribution. This book is not only rich in data, but extremely suggestive in its implications.

UNIVERSITY OF NEW MEXICO LESLIE SPIER

IRISH CASTLES, by *Harold G. Leask*. Pp. i+70, pls. 8, figs. in text, 99. Dundalgan Press, Dundalk, Eire. 8/6.

The author of this book is the Inspector of National Monuments in Eire and, as such, is the head of the Government Department in Dublin which protects and preserves, but does not injudiciously "restore," Eire's ancient buildings. Mr. Leask has held this post for many years and his professional duties have given him a unique opportunity to amass information.

The book is richly illustrated. The photographic plates are not entirely commendable, but this is more than recompensed by the far more numerous plans and line-drawings. Most of the plans are from the records of Mr. Leask's department and the drawings are by the author, who is a highly accomplished draftsman.

The book, which is very brief—indeed all too brief—attempts to be nothing more than an outline of the development of the Irish castle from the twelfth to the seventeenth century. Though the reader can only hope that Mr. Leask will some day put more of his knowledge into a more detailed book, the wisdom of beginning with a short outline is evident from the remarkable fact that Ireland contains at least 2697 castles, and the author suspects that there are more that have not yet come to his attention. One might guess that Ireland had had more fortified buildings of this kind than any other area of its size in all Europe. Most of these are in ruins, and despite the labors of Mr. Leask and his colleagues, a great number are still encumbered with fallen masonry and ivy. Hence, at this time, not much more than an outline is possible.

The Irish castle can well be used as a guide to the history of Irish culture. At the end of the twelfth century a very interesting situation had developed. The Irish round fort, a type of dwelling that goes back to the Late Bronze Age, was the standard domestic architectural form of the native Irish. These forts were built of dry masonry in the mountains, of earth in the lowlands and of timber in the marshes. In 1169 the landing of Fitzstephen and the Anglo-Norman Knights began the long struggle between Ireland and England. Fitzstephen and his friends hastily erected moat-and-bailey castles to hold the lands that they had occupied. These consisted of a high steep mound of earth the foot of which was encompassed by an earthen rampart of somewhat greater extent. On the mound stood a *bretesche*, or wooden tower of a kind shown in the Bayeux Tapestry. The Irish place named Brittas may be derived from this word. Moat-and-bailey castles were built until about 1200 but already, by about 1180, greater conquistadores like John de Courcy began such mighty stone-built castles as Carrickfergus and Trim. Indeed, the few Irish stone castles comparable in size to the largest fortresses of England and the Continent belong to this time. Later, until about 1310, there followed a great period of castle-building. These castles were smaller

than the huge ones that were begun between 1180 and 1200, but most of the fortresses that dominated Ireland until the advent of siege ordnance belong to this time.

For more than a century after 1310 war, pestilence and famine discouraged such large undertakings as castle-building, but in 1429 a statute of Henry VI was apparently responsible for a revival. According to this statute, any loyal subject of the King who chose to build a castle in the English Pale was entitled to a subsidy of ten pounds. The minimum dimensions of a ten-pound castle were, to say the least, astonishing—20 feet long, 16 feet wide and 40 feet high. In other words, what was being officially recommended for the defense of the Pale was a small and very narrow type of tower. Apparently, from the ten-pound castle developed one of the most distinctive of all the many ruined structures that litter the Irish country side—the tower-house, the favorite type of residence of the Irish and Anglo-Irish gentry for 200 years. Even in 1643, a certain Daniel O'Madden built one of these at Derryhivenny, Co. Galway, mediaeval even to its Gothic door. These tower-houses are legion: Limerick has 400, Tipperary 253 and Cork 325. Their first builders had little concern for creature comforts and were more interested in "murdering holes" over doors

and secret chambers entered through false "garde-robe seats." But later occupants added fireplaces here and there.

The last crop of castles produced in Ireland was that of the Scottish Planters of Ulster who came in 1609. These structures were short-lived, for most of them were swept away in the Irish rebellion of 1641.

Unsettled conditions in Ireland did not favor the building of great houses like those of Elizabethan and Jacobean England. A few appeared from the end of the sixteenth century onward, but their windows were fewer and smaller and high above the ground, and at the corners there were towers with musketry loops. After 1600, houses defended only by water-filled moats appear, but these are very few. At the same time, as noted above, castles of mediaeval type were being built, and some forts of prehistoric type were still occupied.

The latter half of the seventeenth century was a period of strife unfavorable to domestic architecture. When it began again, it took the form of the great formed Georgian house from which all trace of defense had disappeared.

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ABBREVIATIONS

The following abbreviations of the titles of publications will be used in the *JOURNAL*, other titles being uniformly abbreviated:

- AA*: Archäologischer Anzeiger.
- AASOR*: Annual of the American Schools of Oriental Research.
- AASPR*: Annual of the American School of Prehistoric Research.
- ABA*: Abhandlungen der Preussischen Akademie der Wissenschaften, Berlin.
- ActaA*: Acta Archaeologica.
- AdI*: Annali dell'Istituto.
- AEM*: Archäologisch-epigraphische Mitteilung.
- AJ*: Antiquaries' Journal.
- AJA*: American Journal of Archaeology.
- AJN*: American Journal of Numismatics.
- AJP*: American Journal of Philology.
- AJSL*: American Journal of Semitic Languages.
- AM*: Athenische Mitteilungen.
- Annuario*: Annuario della R. Scuola Archeologica di Atene.
- AntDenk*: Antike Denkmäler.
- AOF*: Archiv für Orientforschung.
- ARW*: Archiv für Religionswissenschaft.
- AV*: Gerhard, Auserlesene Vasenbilder.
- AZ*: Archäologische Zeitung.
- BASOR*: Bulletin of the American Schools of Oriental Research.
- BASPR*: Bulletin of the American School of Prehistoric Research.
- BCH*: Bulletin de Correspondance Hellénique.
- BdA*: Bollettino d'Arte.
- BdI*: Bulletino dell' Istituto.
- BFM*: Bulletin of the Fogg Museum.
- BIAB*: Bulletin de l'Institut Archéologique Bulgare.
- BJ*: Bursian's Jahresbericht.
- BLund*: Bulletin de la Société Royale de Lettres de Lund.
- BMFA*: Bulletin of the Museum of Fine Arts, Boston.
- BMFEA*: Bulletin of the Museum of Far Eastern Antiquities.
- BMMA*: Bulletin of the Metropolitan Museum of Art, New York.
- BMQ*: British Museum Quarterly.
- BPI*: Bulletino di Paleontologia Italiana.
- BrBr*: Brunn-Bruckmann, Denkmäler.
- BRGK*: Berichte der Römisch-Germanischen Kommission des Deutsch. Arch. Instituts.
- BRISD*: Bulletin of the Rhode Island School of Design.
- BSA*: Annual of the British School at Athens.
- BSR*: Papers of the British School at Rome.
- BullComm*: Bulletino della Commissione Archaeologica Comunale di Roma.
- BZ*: Byzantinische Zeitschrift.
- CAH*: Cambridge Ancient History.
- CIL*: Corpus Inscriptionum Latinarum.
- CP*: Classic Philology.
- CQ*: Classical Quarterly.
- CR*: Classical Review.
- CRAI*: Comptes Rendus de l'Académie des Inscriptions et Belles-Lettres.
- CVA*: Corpus Vasorum Antiquorum.
- CW*: Classical Weekly.
- Δελτ*: 'Αρχαιολογικὸν Δελτίον.
- DLZ*: Deutsche Literaturzeitung.
- Εφ*: 'Αρχαιολογικὴ Ἐφημερίς.

FR: Furtwängler-Reichhold, Griechische Vasenmalerei.
FuF: Forschungen und Fortschritte.
GBA: Gazette des Beaux-Arts.
GGA: Göttingische Gelehrte Anzeigen.
HarvSt: Harvard Studies in Classical Philology.
IG: Inscriptiones Graecae.
ILN: Illustrated London News.
JAOS: Journal of the American Oriental Society.
JdI: Jahrbuch d.k.d. Archäologischen Instituts.
JEA: Journal of Egyptian Archaeology.
JHS: Journal of Hellenic Studies.
JOAI: Jahreshefte des Oesterreichischen Archäologischen Instituts.
JPOS: Journal of the Palestine Oriental Society.
JRAI: Journal of the Royal Anthropological Institute.
JRAS: Journal of the Royal Asiatic Society.
JRS: Journal of Roman Studies.
LAAA: Liverpool Annals of Archaeology and Anthropology.
MAAR: Memoirs of the American Academy in Rome.
MDOG: Mitteilungen der Deutschen Orient-Gesellschaft.
Mél: Mélanges d'Archéologie et d'Histoire.
MJ: Museum Journal of the University of Pennsylvania.
MonAnt: Monumenti Antichi.
MonInst: Monumenti dell'Istituto.
MonPiot: Monuments et Mémoires pub. par l'Acad. des Inscriptions (Fondation Piot).
MJb: Münchner Jahrbuch der bildenden Kunst.
NJ: Neue Jahrbücher für das klassische Altertum.
NNM: Numismatic Notes and Monographs.
NS: Notizie degli Scavi di Antichità.
NumChron: Numismatic Chronicle.
NZ: Numismatische Zeitschrift.
OIC: Oriental Institute Communications.
OIP: Oriental Institute Publications.
OLZ: Orientalistische Literaturzeitung.
PAPS: Proceedings of the American Philosophical Society.
PEFA: Palestine Exploration Fund Annual.
PEFQ: Palestine Exploration Fund Quarterly Statement.
PM: Evans, Palace of Minos.
PPS: Proceedings of the Prehistoric Society.
PQ: Philological Quarterly.
Πρακτ: Πρακτικά τῆς Ἀρχαιολογικῆς Ἑταιρίας.
PW: Philologische Wochenschrift.
PZ: Prähistorische Zeitschrift.
QDAP: Quarterly of the Department of Antiquities in Palestine.
RA: Revue Archéologique.
RB: Revue Biblique.
RE: Pauly-Wissowa-Kroll, Real-Encyklopädie der Klassischen Wissenschaft.
REA: Revue des Études Anciennes.
REG: Revue des Études Grecques.
RendLinc: Rendiconti della Reale Accademia dei Lincei.
REp: Revue Épigraphique.
RevNum: Revue Numismatique.
RevPhil: Revue de Philologie.
RHA: Revue Hittite et Asianique.
RhM: Rheinisches Museum.
RivFil: Rivista di Filologia.
RM: Römische Mitteilungen.
SBA: Sitzungsberichte der Berliner Akademie.
SCIMC: Short Communications of the Institute of Material Culture, U.S.S.R.

SEG: Supplementum Epigraphicum Graecum.
SIG: Dittenberger, Sylloge Inscriptionum Graecarum.
SO: Symbolae Osloenses.
StEtr: Studi Etruschi.
TAPA: Transactions of the American Philological Association.
WS: Wiener Studien.
WV: Wiener Vorlegeblätter.
ZDMG: Zeitschrift der Deutschen Morgenländischen Gesellschaft.
ZfE: Zeitschrift für Ethnologie.
ZfN: Zeitschrift für Numismatik.

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